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Original Communications.

The Rational Treatment of Consumption.*

BY J. H. KELLOGG, M. D.

IN this paper I shall devote no attention to the etiology or pathology of pulmonary consumption, but shall consider what I believe to be the rational, or at least the most rational method of treating this disease. It is generally acknowledged by physicians of extensive experience that few maladies at all curable are less amenable to treatment than tubercular consumption. Every few years the medical world is startled by the announcement that a specific remedy has at last been discovered by means of which this formidable disease may be successfully treated, but the new discovery soon proves to be a myth, based on a too limited experience, or error in diagnosis, or both. The "cod liver oil cure," the "beef blood cure," the "koumyss cure," and numerous other specific cures, are all evidences of the obstinate nature of the disease, each having had its day and been in a large measure displaced by some remedy more lately come into popular favor. I have no panacea or specific method to present; but having had the opportunity of observing quite a large number of cases of this disease under favorable conditions for controlling the habits and regimen of the patient and watching the effects of treatment, I take this opportunity to describe the methods pursued and the results in a few cases, believing that even the smallest contribution to the successful management of a malady which occasions one-tenth of the total number of deaths from all causes annually occurring in this and most other civilized countries, will be considered of value.

I scarcely need say, so well is the fact recognized, that an early diagnosis and early treatment are of the greatest importance in the management of this malady. When the disease has developed sufficiently to be recognized, it is of the greatest importance that prompt and vigorous measures should be employed at once. The greater portion of the sufferers from this disease sacrifice their only hope by delay and procrastination. If the disease has obtained even the slightest foothold, there is no time to be lost.

In the management of cases of this disease, I consider the following as the principal indications to be met by treatment:

1. To check the febrile action.
2. To improve the patient's nutrition.
3. To arrest the night-sweats.
4. To alleviate the cough.
5. To develop the lungs.
6. To sustain and invigorate the patient by every possible means.

After giving a fair trial to most of the various popular methods in the treatment of nearly two hundred cases of this disease in its various forms and stages, I have adopted the following general methods for meeting the above indications, and have found them the most satisfactory in their results:

1. *To Check the Fever.*—The daily elevation of the bodily temperature, as shown by the thermometer, is a perfect index, in all except very exceptional cases, of the progress of the disease. When the deposit of tubercule or the dissolution of tissue is advancing rapidly, the temperature, especially at night, rises considerably above the normal point. In rapidly advancing cases, the morning temperature will be found one, two, or more degrees above the normal. As the daily rise of the temperature is usually preceded by a more or less distinctly marked chill, which generally occurs in the forenoon, it is important to prevent this, if possible, by keeping the patient in bed until an hour or two after the usual time for chilling has passed. We have noted in many cases a marked periodicity in the time of the chills, which gave rise to a suspicion of malarial complication, but did not yield to antiperiodic remedies. Sometimes the chill appears early in the morning; in other cases later in the day. Whenever it does appear, it should find the patient in bed, well covered with warm woolen blankets. At the first indication of a rise of temperature, signifying the approach of the chill, jugs filled with hot

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*Read before the Calhoun County Medical Society, March 7, 1882.

water, hot bricks, or hot water bags, should be placed to the feet and about the body. Care should be taken, however, not to induce profuse sweating.

When the patient has no well defined chill occurring at regular hours during the day, but has wandering and irregular sensations of chilliness, this plan cannot be adopted; but the patient should remain quiet in bed during the early part of the day, and if the fever runs very high, it is best for him to remain in bed several days, provided, of course, that he can have at the same time such other treatment as is needed. By this means his vital strength will be economized; but he must not be confined in bed for a long period, as he needs the advantages of out of door air and exercise. As soon as the fever is materially lessened, let him resume his daily walks in the open air. Copious water drinking, at least to the amount of three or six glasses of water a day, is another means by which the fever may be successfully lowered. The employment of tepid sponge baths at the time when the fever is highest, is a means of great comfort to the patient.

Either pure water or water containing one-third its measure of alcohol may be employed in sponging the patient. Inunction on the dry, parched skin after moistening it by a wet hand-rub, is another measure not to be forgotten.

When the patient is strong and does not suffer with night sweats, a wet compress worn about the chest often affords very great relief from the parching fever. The compress should be removed at midnight or soon after, as the sweating usually begins after that time, and might be encouraged by the compress.

2. *To Improve the Patient's Nutrition.*—As defective nutrition is one of the principal causes of consumption, improvement in this direction should be made an important object in treatment. In order to accomplish this, attention should first be given to improvement of the patient's digestion. If the patient is suffering with any one of the various forms of dyspepsia, he must receive appropriate treatment for the same. This is a matter of very great importance, though it is too often overlooked, the supposition being that the stomach disorder is the result of the pulmonary disease; while the reverse is almost invariably the case. In the majority of cases of consumption which have come under my observation, the history of the disease has shown that it was preceded by some form of digestive disorder. The diet of the patient should consist of such food as he can best digest. In many cases, milk, eggs, well cooked grains, and a small allowance of fruit, constitute the dietary best adapted to the condition of both lungs and stomach. Dr. Salisbury, of Cleveland, who has a peculiar theory of the nature of this disease, believing that it originates from the products of fermentation in the stomach, requires his patients to abstain from the use of fruits, sweets, farinaceous and saccharine foods altogether, and to depend for sustenance almost wholly upon lean meat and a very small allowance of bread. He requires his patients to take several pounds of beefsteak or other lean meat daily, and claims very extraordinary results from this plan of treatment. The plan is undoubtedly successful in cases of the disease in which acid or farinaceous dyspepsia is a prominent feature. But in cases in which the patient is suffering with painful dyspepsia, or with gastric catarrh—conditions which very often accompany the different forms of consumption—a flesh diet is very strongly contra-indicated. With the exception of cases in which the acidity was very extreme we have never thought it necessary to confine patients to an exclusively nitrogenous diet, and believe there are several evils which may arise from this course. We shall have to receive considerable more evidence than has yet been produced to convince us of the necessity of depriving consumptive patients of fruits and grains, and confining them wholly to flesh diet.

The daily employment of massage and inunction at least two or three times a week, together with daily sponging with salt water, are excellent means for stimulating nutrition. To these measures should be added, when possible, a sun-bath daily, from half an hour to two hours in length, according to the patient's strength, and the frequent use of electricity in the form of general faradization. Hydrochloric acid and various other digestive stimulants are also useful in cases in which their employment is indicated, but we consider the dietetic treatment of far greater consequence than medication.

3. *To Arrest Night Sweats.*—The exhausting night sweats, from which many patients suffer, particularly at night, or at any time when asleep, should be checked as speedily as possible. The best means of accomplishing this, is the use of the salt sponge bath, sponging

the body with a mixture of alcohol and water in proportion to one part of the former to two of the latter, and sponging the body with hot water at bed time. The last remedy we employ very frequently, and are much pleased with the results afforded by it in the prevention of these exhausting sweats. It is important that opium in every form should be avoided in these cases, as its use is certain to increase the sweating. This fact should be borne in mind in the selection of a remedy to relieve a cough when troublesome.

4. *To Alleviate the Cough.*—This troublesome symptom is often one of the chief sources of weakness and increasing debility, since it deprives the patient of his necessary rest at night, and exhausts him with continued and harassing efforts to relieve the unpleasant sensations by which it is provoked. Often the cough is produced, not by the condition of the lungs themselves, but by some form of irritation in the throat. This chronic irritation is not infrequently accompanied by elongation of the palate. The cause of the cough should be sought for, as it not infrequently happens that much annoyance and waste of strength will be thus saved. If the difficulty is chiefly in the throat it will be readily relieved by soothing gargles or other appropriate treatment, such as packing the throat at night with a wet towel, a strip of spongio piline, or a bandage made for this purpose. When this means is used the throat should be bathed in cool water on removing the bandage in the morning, and should then be rubbed with a little vaseline or sweet oil to prevent taking cold. Very simple remedies are often very effective in relieving the most distressing cough, as gargling the throat with hot water, holding small pieces of ice in the mouth, taking frequent sips of hot lemonade, and similar means.

Another measure which is very effective for the relief of cough is the application of fomentations to the chest or between the shoulders. These applications should not be made too frequently, and should not be continued too long at a time, usually not more than fifteen or twenty minutes if the patient perspires easily, and great care should be taken to prevent exciting perspiration by the fomentations. This may sometimes be avoided by the use of dry heat by means of hot water bags, heated bricks, etc. A compress of flannel moistened in tepid water applied to the chest at night will frequently be found to be a most effective means of relieving a harassing night cough. Two or three thicknesses of flannel should be used, and the compress should be wrung as dry as possible, and should be covered by two or three folds of dry flannel. When the compress is employed the chest should be rubbed the next morning with the hand dipped in cool or tepid water, and then carefully dried, anointed with vaseline, and covered with dry flannel or a chest-protector through the day.

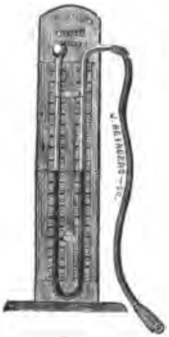
The use of the various popular cough mixtures for the relief of cough is generally attended by much more harm than good, even though the patient may be rendered temporarily more comfortable, as the majority of them contain opium, to which their effectiveness is chiefly due, but which increases the exhausting night sweats. As a general rule, patients run down and the disease progresses much more rapidly after beginning the use of opium in any form.

It should be borne in mind that cough is only a symptom, the significance and importance of which varies greatly in different cases. Sometimes it is best that it should be encouraged instead of being repressed. When the patient expectorates very freely, the cough is a necessary means of relieving the chest of matters which would seriously interfere with the functions of the lungs if retained. The kind of cough which it is important to relieve is an irritable, ineffective cough, unaccompanied by any considerable degree of expectoration. This kind of a cough is sometimes excited by the irritation occasioned by an elongated uvula, for which the proper remedy is snipping off the end of the offending organ. Loaf sugar, honey, or a mixture of honey and lemon juice, and other simple remedies familiar in every household, are often effective in relieving a cough which is accompanied by little expectoration. In cases in which cough cannot be relieved in any other way, and is very distressing and painful, some one of the simple expectorants should be employed. If necessary, bromide of potash in ten to twenty grain doses may be combined with the expectorant.

5. *To Develop the Lung.*—As one of the causes of lung diseases is deficient exercise of the lungs, it naturally follows that suitable exercise of those organs constitutes one of the most important measures of treatment. No part of the body is more susceptible of development by judicious and appropriate exercise than the lungs. The amount of air which passes to and fro in the respiratory pro-

cess is ordinarily but two-thirds of a pint, and in cases of disease is much less, often being reduced to less than a third of this amount. By daily exercise of the lungs in such a manner as to develop the chest, the breathing capacity may be very greatly increased. We have frequently seen the chest expanded three or four inches by a course of appropriate training. One of the best exercises for this purpose is forced respiration, which consists in breathing as deeply as possible, making strong effort to fill the lungs, and emptying them as completely as possible. Breathing through a small silver or glass tube is an excellent means of securing the proper effect and steadiness of movement. This exercise should be taken slowly for five to thirty minutes at a time, and should be repeated several times a day. Too much emphasis cannot be laid upon the importance of giving attention to these measures of treatment. The patient should make it a large part of his business each day to attend to his respiration. At frequent intervals he should expand his lungs to their full capacity, avoiding violent efforts, especially when there is danger of hemorrhage. Walking, horseback riding, and all forms of exercise which call the lungs into increased action, are excellent means of treatment, and should be urged upon the patient.

One of the most observable features of this disease is progressively increasing rigidity of the chest walls and decrease of motion in the affected portions of the lungs. The loss of respiratory power is very readily shown by means of the pneumatometer (*fig. 1*).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(Fig. 1.)

A healthy adult will easily raise the column of mercury of the instrument 60 or 100 mm. But we have frequently found patients who could not produce an indication of more than two or three mm., showing an almost entire loss of respiratory power.

The diminishing lung capacity is admirably shown by the spirometer (fig. 2). A person in health ought to exhale after a forced inhalation, from 160 to 300 cubic inches of air. We frequently find persons who can not exhale more than 60 to 75 cubic inches. Too little attention has been given in the treatment of consumption, to regular and systematic efforts to develop the lung power and capacity, notwithstanding the full recognition of the fact that their loss is one of the most marked features of the disease.

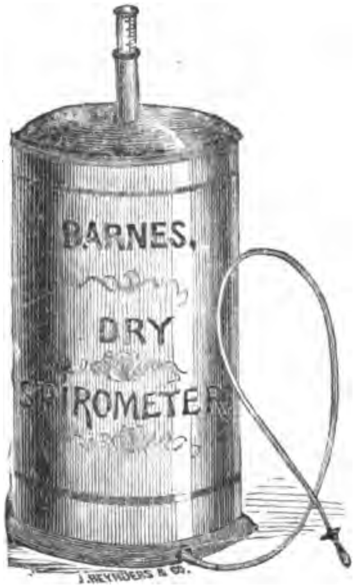

Fig. 2. Spirometer.

Another means of increasing the lung capacity and power, in special exercise, both passive and active, applied in such a way as to increase the strength of the respiratory muscles. The passive movements useful in these cases, consist chiefly in the rubbing and percussion of the muscles of the chest and back, and in the application to the patient, for at least one half hour daily, of some one of the most approved forms of artificial respiration. That known as Sylvester's method is very convenient for this purpose. Another simple method consists in lifting the patient by the shoulders, while he is in a sitting posture. I have recently perfected an apparatus, by the means of which artificial respiration may be administered any desired length of time, without the aid of an assistant.

Another measure which we can especially recommend, is the application of faradic electricity to the muscles of the chest. The current should be sufficiently strong to cause contraction of the muscles. The best mode of application is to place the positive pole between the shoulders, applying the negative along the spaces between the ribs so as to cause contraction of the intercostal muscles. The application should also be made to the pectoral muscles, which form the fleshy part of the breast, and to the muscles of the neck. In addition to the other measures described, probably the best of all means of expanding the chest and increasing the lung power, is the pneumatic apparatus devised by Waldenburg (fig. 3). I have now used this apparatus in quite a number of cases and have obtained decidedly beneficial results. I regard it as one of the most important remedial appliances in such cases. It is, of course, too cumbersome and expensive for general use in private practice.

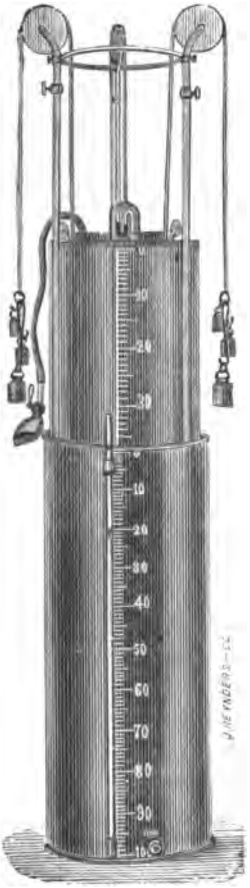

Fig. 3. Waldenburg's Apparatus.

6. *To Sustain and Invigorate the Patient in Every Possible Way.*—As this disease is characterized in a remarkable degree by progressively increasing debility, no means should be neglected which will contribute in any way to sustain the patient's strength and reinforce his waning vitality. A nourishing diet, abundance of sleep, cheerful surroundings, a plentiful supply of pure fresh air, abundant daily exercise in the open air, particularly in horseback riding, exposure to the action of the sun's rays by exercise in the sunlight as well as by sun-bathing, and total abstinence from all depressing influences of every sort, are among the essentials of the hygienic management of the disease. Tonic applications of electricity and the judicious use of bathing, together with daily employment of massage, frequent inunctions to the whole body,and all other means of improving nutrition, are necessary parts of the successful plan of treating serious cases of pulmonary disease. Patients should be cautioned in regard to exercise, especially against exerting themselves to a degree to induce extreme fatigue, and to avoid violent exercise of all sorts, such as running, leaping, going rapidly up stairs, speaking in a loud tone, or singing for a long time, or in any other way overtasking the respiratory organs. Care should be taken to avoid exposure to sudden changes of temperature. Patents accustomed to a warm atmosphere most of the time should, in cold weather, wear a respirator. When out of doors, they should take especial care to breath wholly through the nose so as to avoid bringing cold air in contact with the mucous membrane of the lungs on account of its irritating character. By breathing through the nose the air is warmed before it reaches the lung, and this injury is prevented. In the absence of a respirator, an ordinary cotton handkerchief may be used for the purpose with advantage, being tied over the mouth and nostrils in such a way that the air drawn into the lungs must pass through it.

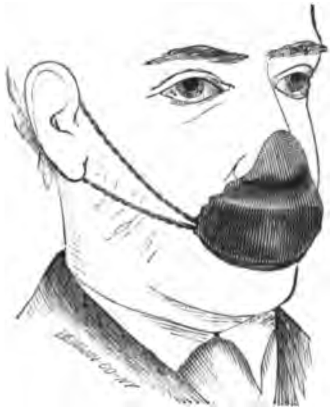

Fig. 4. Respirator.

Much undue stress has been laid upon the influence of climate in the cure of consumption. The idea has prevailed that certain climates have a special curative effect upon this disease; but there has been a controversy as to which is the exact climate which posesses curative virtues, since it has been observed that the patients get well under the most diverse climatic influences. The diversity of opinion among physicians on this subject has caused some to advise patients to visit Florida, the West Indies, Mexico, and other tropical and semi-tropical regions, especially during the cold seasons of the year; while others have sent their patients to Minnesota and the Upper Lake Regions and even to more northern parts. A thorough discussion of the subject at the late meeting of the British Medical Society, in which Dr. Bennett and many other eminent physicians took a part, led to the conclusion that the chief advantages derived from climates supposed to be favorable to the recovery from this disease are, uniformity of temperature and opportunity for abundant out-of-door exercise. Climates which are subject to rapid alterations of temperature, or in which the cold season of the year is so severe as to confine the patient within doors, or which in any other way interfere with daily and regular exercise in the open air, are unfavorable to this disease. We think however, that many of the advantages of change of climate may be obtained by careful management at home. In the summer season in this latitude, a consumptive patient may enjoy nearly all of the advantages that can be obtained anywhere, especially if he is able to make a visit of six weeks to the Upper Lake region during the latter part of July and August. In winter, by means of a respirator and proper attention to clothing, abundant exercise can be taken out-of-doors; and with sufficient care in regulating the temperature and moisture within doors, and securing good ventilation, almost as good conditions can be enjoyed as in any climate to which the patient could go.

I speak from practical experience, after having carried through several winters patients who have previously found it necessary to spend the winter season in a warm climate.

In conclusion, a word must be said in reference to some popular errors concerning the disease. One of the most prominent of these is the idea that the use of alcohol is one of the most successful means of checking the progress of the malady. Many physicians have encouraged this error, and not a few drunkards have been made such by a physician's prescription, the intent of which was to cure the patient of a grave malady, but the effect of which was to make him a victim or a terrible vice. Positive evidence is yet wanting to show that alcohol has any curative value whatever in consumption, and there is plenty of evidence to show that the habitual use of liquor is one of the surest means of producing this disease.

Whisky became popular as a remedy when physical diagnosis was not so well understood as at present, and we believe that its reputed value rests chiefly upon errors in diagnosis, though we believe it possible that in some cases it may act as a digestive stimulant, and by improving nutrition aid in the cure of the disease.

Cod-liver oil has also enjoyed a reputation for the cure of consumption which we believe it does not deserve. In most of the cases which have come under my care it had been used without any benefit, and although I have in every case discontinued it, I have never observed any evil results from so doing, but have in nearly every case found benefit by the improvement in appetite and digestive power of the patient. It is now held by many of the most intelligent and experienced members of the profession that the advantages claimed for this remedy are by no means substantiated by experience, and that its chief utility, if it has any, is simply due to its nutritive value as an oleaginous food. As such, however, it is much inferior to sweet cream. This has been clearly shown by the experience of many physicians, and in my opinion the time is not far distant when this nauseating drug will occupy a much less prominent place than it has heretofore held. Preparations of malt and maltine have lately been introduced as a substitute for cod-liver oil. I have used them to a considerable extent, and I think with advantage. Many practitioners do not hesitate to pronounce them vastly superior to cod-liver oil. They are certainly much more palatable, and do not disturb the digestive organs.

But I have already prolonged this paper much beyond the limits which I set for it, and must now bring it to a close, though I have barely hinted at some of the chief features of what I consider the proper treatment of this grave malady. With reference to the practical results of treatment, I will say that although the cases which have come under my care have been chiefly persons in the middle or last stages of the disease, I have succeeded in not a few instances in materially checking the progress of the disease as indicated by the decline of the febrile symptoms, relief of night sweats, improved appetite and increase of flesh and strength.

In quite a number of cases, also, cures have been effected. Without wearying you with the details of them, I will mention a few:

Case 1. Mr. T., a clergyman from a western state, came under my care at the Sanitarium, February, 1877. He had been suffering with unmistakable symptoms of well established tubercular consumption for several months. The patient was a man of fair constitutional vigor naturally, but at the time I first saw him he was so reduced in strength that he was able to walk but a few rods at a time, and his breath was so short that he could speak but a few words without stopping to take breath. He was greatly emaciated, having steadily lost flesh for several months. He coughed much of the time, especially nights, and expectorated very copiously. An examination of the sputum showed it to consist largely of pus, and an abundance of yellow-elastic connective tissue was always present. The pulse was never below 100, and was 120 most of the time. The morning temperature was never less than 100 degrees, and the evening temperature was seldom less than 103 degrees. A careful physical examination of the lungs showed the presence of a large cavity near the apex of the left lung with consolidation of the upper two-thirds of the upper lobe.

The patient had little appetite, very sluggish digestion, and had a distinct rigor every morning, and profuse sweating every night. He was failing rapidly, and had been pronounced hopeless by several physicians who had examined and treated him more or less.

The case seemed so dubious that I did not deem it prudent to give the patient any encouragement, and advised him to return to his friends. He was very reluctant to do so, however, and insisted upon remaining for a few weeks, at least. I permitted him to do so under protest, determined to watch the case carefully and to insist upon his getting back to his friends at once if his symptoms should increase in severity to any extent. Greatly to my surprise, the patient soon began to show marked evidences of improvement. He increased in flesh and strength as a consequence of increased appetite and improved digestion, the morning chill disappeared, the exhausting night sweats ceased, the pulse diminished in frequency, the temperature declined both at morning and night, the cough became less troublesome, and the expectoration less. At the end of three months there had been a gain of twenty pounds in weight, the pulse was sixty, the temperature normal, the respiratory power and lung capacity greatly improved, and although there was still dullness at the apex of the left lung, and the cavity was still present, the sputum contained much less connective tissue, and the patient was recommended to spend the summer in some light, out-of-door employment. He returned to his home, and, contrary to my advice, soon resumed his pastoral duties, feeling so well that he considered himself able to do so. He did nicely, however, during the summer, but at the beginning of cold weather took a very severe cold, which brought him back to the sanitarium in a condition almost as bad as before. He spent the winter under treatment, made steady improvement as before, and in the spring I recommended him to move to Colorado, thinking by this means to prevent his return to his profession. He went to the southern portion of the state, and continued to improve, although he soon resumed his labors as a clergyman, and at the end of another year reported himself in better health than he had been for many years. He was examined by Dr. Dennison, of Denver, a few months later, who pronounced the cavity healed. When I last heard from him, a few months since, he was enjoying good health.

Case 2.—Miss S., a young lady, about 19 years of age, of a slender constitution, parents weak and sickly, though no history of tubercular disease in other members of the family. The patient was very much emaciated, and was very weak from loss of blood, having had repeated hemorrhage from the lungs within the space of a few weeks. No appetite, profuse night sweats, a feeble, rapid pulse, chill every morning, marked rise of temperature in the afternoon and evening, cough, with frothy expectoration, and great shortness of breath. A physical examination showed a tuberculous deposit in the right apex. After a few weeks' treatment, recommended the patient to visit a friend in the country, giving her a prescription for diet, exercise, etc., to be strictly followed. Two years later I was accosted on the street by a lady whom I did not recognize, who introduced to me her husband, and presented a fine little boy, about a year old. She seemed to be in the enjoyment of excellent health, and had had no symptom of the old malady for more than a year and a half. A year later, however, she took a severe cold, the disease returned and ended fatally, notwithstanding a trip to California.

Case 3.—A man about 35 years of age came under my care in August, 1881. The leading symptoms of his case were emaciation, loss of strength, cough, with frothy expectoration, had had two or three slight hemorrhages, had daily chills snd profuse sweating at night; evening temperature, 102 to 103 degrees; very little appetite, slow digestion, and, as shown by physical examination, very marked and extensive dullness at the apex of the left lung. After two months' treatment the patient went home to make arrangements to spend the winter under treatment, but he continued to improve, and made such rapid progress that he did not find it necessary to return. At present he is enjoying excellent health. The last physical examination showed little dullness, and we have no doubt that at the present time the lung is entirely free from disease.

Case 4.—Mr. A., a clergyman from Canada, came under treatment August, 1879. The patient presented all the symptoms of advanced phthisis. Was expectorating large quantities of pus containing much connective tissue daily. Was much emaciated, had a distressing cough, no appetite, copious night-sweats, very distressing shortness of breath, great weakness, and a daily temperature at 7 P. M., of 103 to 103½ degress. Physical examination showed a large cavity in the left lung and a considerable degree of consolidation in the right apex. Mucous and subcrepitant rales were abundant at the left apex, and crepitant rales were numerous at the right apex. I gave a very grave diagnosis, telling the patient that I could promise nothing, but as he was anxious to remain, put him under treatment, and with the gratifying result that in the course of a few weeks he was very greatly improved. I still considered his case as practically hopeless, and urged his return to his home before the advent of cold weather, thinking it impossible that he could live more than a few months at the longest. Advised him to continue, so far as possible, the same regimen he had been following, and to pay particular attention to horseback riding as a form of exercise, as he was too weak to walk but a very short distance. He was even too feeble to ride without walking his horse very slowly. He returned to his home, followed the advice given with great fidelity, and after a few months I was gratified to learn that he had returned to his ministerial duties as pastor of a large church, and that the disease was apparently checked.

Case 5.—Judge S., of a neighboring State, came to the Sanitarium as a patient in September, 1881. Finding himself running down rapidly, losing flesh, coughing severely, and expectorating freely, with morning chills and evening fever, he left his home and went to Petoskey, hoping to find relief by change of air. He was disappointed, however, and steadily failed so rapidly that he left in despair, coming to the Sanitarium in a condition so low that it was necessary to carry him upon a stretcher. Physical examination showed distinct dullness over a greater portion of the lower lobe of the right lung, with mucous and subcrepitant rales, and bronchial breathing. The cough was so troublesome as to deprive him almost wholly of sleep. Expectoration was very free, and contained a large proportion of pus. The temperature was 102 to 103 degrees at night, and was usually two or three degrees above normal in the morning. I did not dare offer encouragement of cure, and advised the patient to resign his position as judge of an important court, and make up his mind to devote two or three years to his health as the only possible means of averting a fatal issue. He soon began to improve under treatment, however, and in two months his worst symptoms were greatly mitigated. In three months, though against my earnest protest, he returned to his home and resumed his professional labors, and continued to improve. At the present time he reports himself as in the enjoyment of good health.

I have now under observation several cases of phthisis and various other forms of pulmonary disease, and the results of the plan of treatment marked out in this paper are certainly very promising, even in cases which have been but a short time under treatment. In one case of advanced pulmonary tuberculosis, the lung capacity has been increased from 150 cubic inches to 200 cubic inches in three weeks' time, the morning chill and the night sweats have been checked, and there has been marked improvement in every particular. In a case of chronic bronchitis, the lung capacity has been increased from 75 cubic inches to 130 cubic inches after six weeks' treatment. Others are doing equally well, but not all, of course, as many are not benefited by any mode of treatment except by way of mitigation of their most distressing symptoms.

I might cite a much larger number of cases, did time permit, but these will be sufficient to show that a combination of the various means of treatment named is capable of securing good results even in cases of the most discouraging character. I believe most firmly that consumption is much more amenable to treatment than is generally believed, but consider that it is necessary to have the patient under such complete control that all his habits of life may be most carefully regulated. This cannot always be done at home, and hence this class of patients are best treated in a well regulated hospital where all necessary appliances for treatment are afforded, together with means for a careful regulation of the dietary, exercise, etc., which can seldom be secured elsewhere.

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Extra Uterine Pregnancy—With Reports of Two Cases.

BY A. HURD, M. D., FINDLAY, OHIO.

THE whole process of reproduction—the laws which govern it, the accidents which befall it—is mysterious and wonderful. Commence, if you please, with vegetable life, and trace the relationship and note the wonderous operations performed. Here is a cherry tree with its little spur from the main wood—its bloom, its fertilization, its germ, then its fruit. Six to ten little stems putting out from the little spur, each one crowned with complete fruit, the weight of each of which is far greater than the sprig of the main branch from which all receive their nourishment and supply. Whence this supply, this vitalty and wonderful activity? Just how much is drawn from the parent stem, and how much is selected by a mysterous power inherent in itself and appropriated from the surrounding atmosphere is difficult to realize and determine. Still the facts exist—the fruit is perfected, the end is reached, the act is concluded, its perfection, beauty and relish are realized; we profit by and appreciate the part which will, according to the laws which govern vegetable life and the operation of chemical forces, soon decay. But still the germ is left behind. Let a little accident befall the germ or fruit, an insect sting it, one germinal cell take on a wrong form, one variation in size or shape take place from extraneous forces, and you have a *bastard* effort in the results of the production of the fruit which otherwise would have been complete and perfect. Nature left free to act never makes mistakes in her vegetable domain, for her laws are fixed and invariable; but extraneous forces and unforseen *accidents* step in through the waning powers of the elements and parasitic life which surround her, and then mistakes are seen and felt, with no power in man to ward them off, or prevent their occurrence. With such accidents we are all familiar. Science has attempted to step in and explain; but the causes operating, the forces manifested are too occult for complete interpretation. The occult powers and laws manifested in the continuation and reproduction of animal life are still more complex and mysterious. Vitality is an entity. Whether the result of a peculiar organism, or an "infinite controlling power," I do not care now to enquire or discuss. Still the fact itself exists—the reality is with us, and the *means* used to continue it, and the laws which govern its manifestations are pretty well understood, etc. But not so well its variations and mistakes. The ovule and the germinal fluid are necessary, the contact must be had, the conditions favorable, and then a vitalized being or animal; but let there be a deviation or a lapse in any essential condition, and you have an incomplete being or animal, owing no doubt to an interference with the *selective*, peculiar and organizing forces of the plasma or proto-plasm out of which all living structures and beings are formed, and from which all vitalized forces proceed. But it is not apropos for me at this time to enlarge on this topic, for these thoughts are merely preliminary to the statement of some facts, prefacing the report of two cases of extra uterine pregnancy which have come under my observation. I shall not enter into the discussion largely of the various theories connected with the causation of such cases, the comparative frequency of the different varieties, or discuss exhaustively the fact or theory whether there are three or more varieties of extra uterine pregnancy, viz: Tubular, ovarian and ventral, or controvert the theory as to whether the germs can possibly reach the ovule and fertilize it before the rupture of the sac, and so remain an ovarian pregnancy. It looks doubtful to me, owing to the well-established physiological facts as connected with ovulation, and the necessity that it implies, that the ovule has become fertilized before the rupture of the "Graafian follicle;" the anatomy of the parts concerned, the changes that take place in the fixation and subsequent conditions necessary for the growth and development of ovarian gestation, etc., would seem to throw a shadow of doubt upon the occurrence of ovarian pregnancy. Still there are medical men of great reputation, of skill, careful observers, who maintain the possibility of such an occurrence, and it is very difficult to gainsay their facts or the conclusions drawn therefrom. For these little beings or vitalizing bodies, the spermatozoa, are very insinuating little creatures, are very busy and curious in their operations, and do sometimes find their way into places, and results arise therefrom which are unlooked for and under ordinary circumstances would seem unreasonable. And certainly there are no facts which we can glean from the female; for the "act of conception being one of a purely organic nature, is not of itself productive of any sensation on the part of the mother," and hence the fact that we know so little of the mechanism of conception that it would be idle and unprofitable to speculate deeply on the causes that may produce this deviation from "nature's established institutions." Various explanations have been offered founded upon as contradictory and puerile reasons as generally characterize speculations upon subjects concerning which we know but little and to which speculative minds are directed, etc. It is more easily understood how tubular pregnancy might occur, and most probably all ventral pregnancies result from the ovule being met by the spermatozoa in the fimbriated extremities of the tubes, there vitalized, and, falling into the ventral cavity, becoming fixed; the villi fastening themselves, forming the proper connection, and gestation continuing till the full term is reached, or, the sac being ruptured by some untoward cause, or some "interference with nature's own process," a crisis arises, owing to changes which take place in the sac and its contents. But no such disturbance occurring, it is a "curious circumstance in the history of these cases that the child should live till the term of gestation is completed, and as soon as that time has expired the uterus takes on itself expulsive action, which is attended with pains similar to the throes of true labor, and during these pains the deciduous membrane is expelled from the cavity, with more or less sanguineous discharge, and the same also occurs on the death of the ovum, provided that be premature. Life is never continued to the fœtus beyond the natural term of gestation." These facts are curious and strange: that the uterus should endeavor to expel a being or thing entirely outside of her domain, and with which she has had but very little to do, seeming to possess an organic sense (so to speak) that she was under obligation to act vicariously and relieve parts and structures that had no business to usurp her functions. Still I will not labor and elaborate the subject, but will refer the curious for fuller accounts of the subject to our larger and systematic works on obstetrics, etc. I shall say nothing relative to the general management of such cases except what incidently belongs to the cases which I propose to report; and possibly there may not be sufficient interest in the cases considered and the preliminaries thereto to justify me in claiming your attention. Still I shall venture to submit them to your notice and consideration.

Case No. 1: I find in my note book of cases, 1855 mainly, the following record of facts which have never been published, which I will briefly give:

Mrs. Johnson, Oxford, Ind., æt. 32, well developed, of previous good health, married, and has given birth to four children; always had a good "getting up," and remained in good health until about nine months after the birth of her last child, when she consulted Dr. R., thinking perhaps she was again pregnant. Her menstruation had been regular from after the fifth month from her last confinement, and still continued so, but she had sick stomach, in the morning severe nausea, and an occasional uneasiness and pain in the abdomen, sometimes low down, and at other times in the left iliac region. Soon afterwards she thought she felt a "lump" on that side, movable, and not tender or painful on pressure. She called the attention of her doctor to the fact, and he (a careful man) thought she was going to "have a dropsy." Time went on for about eight months and the patient no better. The case was turned over to me. I made a careful examination. Her abdomen was much enlarged, and more prominently so on the left side, was not tender, and on palpation was resonant on the right side, but dull on the left. I examined the urine, the heart, etc., and could find no cause for dropsy (for dropsy is not a disease *per se*) resulting from the disease of either of these organs, nor had she (so far as I could learn) suffered from either acute or chronic peritonitis, and hence from a process of "diagnosis by exclusion," I came to the conclusion she had a "tumor," of what character was in doubt. You must know at that time the true character, diagnosis, pathology, and treatment of ovarian tumors was but little understood by the common "cross road" practitioner. And "extra uterine pregnancies" had not been studied and so fully elucidated then as now. The observations and experience of such grand men as McDowell, Marion Sims, Thomas, and Spencer Wells, and others were not generally known and understood or appreciated at that time. The light of their genius had not then illumed that domain of pathology and surgery; then what wonder was it that a mere tyro in the profession should be puzzled, alarmed, and perplexed, and perchance irrational in his treatment and management of the case? I tied myself to the case; watched all the developments, tried to give courage and hope, to relieve pain, and make her as comfortable as possible. But she grew worse, the supposed tumor was larger, the paroxysmal pains more severe. She began to have fever, lost flesh, was interchangeably constipated and then diarrhœa; the urine was passed with difficulty, the stomach was more irritable, digestion and assimilation bad, restless and uneasy, with a dejected and anxious countinence. Now she showed signs of a septic poison, had more pain, lost flesh more rapidly, and I noticed a tinge of blood in her stools. This was about five months after the case came under my observation. She grew gradually and fearfully worse, with more severe pain, in which the uterus seemed to suffer more blood in the stools, greater difficulty in urinating, more diarrhœa, and tenesmus; and finally during a paroxysm of most terrible pain with free hemorrhage and the passage of abundant fecal matter I noticed in the vessel tufts of hair, shreds of broken tissues, etc., with small bones somewhat changed by attrition, but supposed to be tarsal and carpal bones. She rapidly sank and died from exhaustion about 14 months from the time of her supposed pregnancy. Unfortunately no post mortem could be obtained, but I am fully satisfied in the light of subsequent events that she had ventral pregnancy, and died from the exhaustion of her vital forces resulting from such condition, with perhaps a septic condition of the blood from the decomposition of the cyst and its contents.

Case No. 2. In the fall of 1878, Mrs. Hannah Foor (a patient of Dr. J. A. Grove), of Mt. Blanchard, Ohio, æt. then about 34, the mother of one child, æt. then about 13, was taken sick with irritable stomach, followed by chills and fever. Supposed at the time to be suffering from an attack of intermittent fever, and probably was. Proper treatment was given, and she seemingly recovered her usual health. About four months afterwards she suffered from a relapse; was very sick with severe pain in bowels, slight discharge from uterus, and a sense of fullness and distress which was quite unusual. I was sent for in consultation. Made (as I then supposed) a careful examination, both general and local, using the speculum and sound to fully ascertain the relative condition of the parts. Uterus slightly congested and enlarged, with patulous os, the sound passing about three inches into uterus, with no evidence of *anything* contained therein. Meantime I want to say, that she had menstruated as regularly as usual. But upon careful conjoined examination of the abdomen, by palpation, and otherwise, we found on the left side, near the ovary—perhaps a little lower down—a small, well defined and hard growth, movable, and not very tender, about as large as a small cocoanut. We then thought she had chronic ovaritis, probably a cyst, which would ultimately develop into a large, well defined ovarian tumor. General and expectant treatment were advised and resorted to; and we determined to watch and wait developments. She gradually recovered her general health, continued to menstruate, but the enlargement, or the "lump" (as she expressed it), still remained. I lost sight of the case till last fall (1881), when I learned she was having a severe attack of what was supposed to be typhoid fever, with (as Dr. Groves kindly informs me) a high temperature, 104° F., frequent pulse, diarrhœa, tympanitis, and subsultus. At the end of about eight weeks from the beginning of the attack I was called to see the patient, because of occurrence of a severe hemorrhage from the bowels and exceedingly irritable stomach. Found her from all external and general appearence suffering from typhoid fever, much emaciated, and in a state of almost complete collapse from loss of blood and inanition. Her condition was such that no very careful examination could be made. Absolute repose was enjoined. Ergot and opium given to arrest the bleeding; as much beef tea and brandy given as the stomach would tolerate; that failing, brandy and beef tea were thrown into the rectum. Dr. Groves informs me she gradually improved; retained her food; hemorrhage ceased; gained strength, and was able to leave her bed. Seemed cheerful, and was to all appearance in a fair way to recover her usuul health.

About April 15, 1882, was called again. Another relapse, with great irritability of the bladder and retention of urine, accompanied by a terrible sense of fullness and pain with bearing down in the region of uterus and rectum.

A vaginal examination was made; uterus was pressed low down, but the sound revealed the fact that there was no elongation or obstruction. The sound passed 2½ inches. Sound in bladder showed much distention, with elongation, the fundus extending nearly to the umbilicus. The rectum was distended, hard, and nearly filled the pelvic cavity. It was not fecal matter which could be reached by the finger, but some hard unyielding foreign body, which filled the rectum, concerning the real character of which we were then in doubt, and the patient's condition was such that we were not justifiable in making a more extended and complete examination at that time. Of course we were perplexed and in doubt as to the real cause of the trouble. We made her as comfortable as possible. About five days afterwards, Dr. Groves came to the city, and brought with him bones and pieces of bones which had passed into the bladder and out at the urethra, notably two ribs and parts of the vertebræ. (Upon reflection the doctor stated that during her severe sickness, when she had diarrhœa, that he, as well as the friends, had noticed the peculiarity in the discharges from bowels and bladder—lumps, hard bodies, and shreds with unusual smell—but their character was not fully understood at that time; subsequent events and facts would seem to point out the cause, etc.) The true cause of all this trouble, upon the expulsion of the bones, was then clear. We had a case of extra uterine pregnancy, ventral in its character, of more than four years' standing; with death of fœtus, ulceration, decomposition and destruction of the sac and its contents, commencing probably at the time she had her first relapse after she was attacked with fever, 3½ years ago. She lingered about two weeks and finally died from exhaustion.

Query: Did she suffer from true typhoid fever, and the consequent impairment of vital force and deterioration of the blood resulting therefrom set up inflammation and ulceration in the cyst and its contents? or, was the high grade of fever, with its concomitant symptoms, so nearly similar to typhoid and so carefully noted, the result of a septicæmia produced by the ulceration and decomposition of the sac and its contents, which, by absorption, entered the blood, resulting in the general condition above detailed ?

Post mortem held by Dr. J. A. Groves, of Mt. Blanchard, O., assisted by Drs. John Foster and W. N. Tost, of same place; W. T. Gemmill and L. A. Perce, of Forest, O.; J. D. Johnson, of Wharton, O.; Wm. Dritzler, of Hancktown, O., and A. Hurd, of Findlay, O., on the 6th of May, 1882, on the body of Hannah Foor, æt. 38, thirty hours after death (dissections carefully and skillfully made by Dr. Dritzler). Rigor mortis well marked; emaciation very great; abdomen not much distended, but very much discolored. On opening the abdominal cavity, very little evidence of recent or post general peritonitis. Stomach, small intestines, the ascending and transverse colon not much diseased. But after cleansing away the fecal matter which had escaped into the cavity, and as we approached the lower part of the descending colon and the fundus of the bladder, we found firm adhesions from previous inflammatory action. When the adhesions were broken up, we found a rent or patulous opening, about one inch in diameter, in the colon, about three inches above the sigmoid flexure, and a corresponding rent or patulous opening in the bladder, of nearly the same size and character, with very slight adhesions. The pelvic cavity was filled with fecal matter and debris of broken down tissues, which, on being carefully removed and the rectum reached, the latter was found packed full of fœtal bones—probably of about six months' growth and development—worn by attrition, stripped of all soft tissues, though sufficiently well preserved to recognize and note their name and character; and, strange to say, there were two sets of bones, enough pairs and duplicates preserved and intact to prove conclusively and without controversy the fact that it was a case of *double* extra uterine pregnancy, and, so far as I am aware, the only case of the kind on record. At least no authority which I have been able to consult mentions such a case, and the recollection of my reading on the subject does not call to my mind a single case of twins or double extra uterine pregnancy. And whether the true record of this case will add anything to the true knowledge of copulation and gestation, or of interest to the profession, will be left for determination by observers and the curious.

The ovaries were so much changed and incorporated in the surrounding tissues and their adhesions as to be not well defined. The uterus was slightly congested, elongated and enlarged. The sound passed three inches, and a section made of it, revealed no well marked indications of inflammatory action. The fallopian tubes were seemingly intact, and their fimbriated extremities could be noted; the bladder-walls much thickened, corrugated and congested, with its *holding* capacity much increased. Other parts of the body were not examined. Finally, the post-mortem revealed the fact that the patient died from the *results* of *double ventral pregnancy*.

These cases to me are curious, strange and unusual. Surrounded with such difficulties, so obscure and occult, that it would seem almost impossible to make a correct diagnosis, and when correctly made, offering but little hope for medical and surgical relief. This was a peculiarly obscure one, and was so occult in its character and behavior that I should not be surprised that even more experienced diagnosticians than we were would have made the same mistakes, and arrived at the same ante-mortem conclusions as we did in the case detailed above.

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Injustice from want of Recognition of the Disease of Inebriety.

BY T. D. CROTHERS, M. D., SUPT. WALNUT LODGE, HARTFORD, CONN.

I DESIGN in the following case and comments, to call special attention to the great wrongs which may follow from acting on the theory that inebriety is a sin *per se*, which the victim can remove by his own will power, and on this basis holding him strictly accountable. Also to show the absolute necessity of a thorough scientific study of inebriety, and of the chain of causes which enter into every case, before the measure of responsibility, or the real condition can be understood. Some time ago the following paragraph appeared in the daily papers. Colonel—U. S. A., was dishonorably dismissed from service, on the charge of drunkenness and conduct unbecoming a gentleman.

My attention has been recently called to this case, and the following history elicited from the most reliable sources, which have been open and available always. B., born in Maine, father a ship builder and moderate drinker, mother died of consumption in middle life, her father having been insane, and one brother a chronic inebriate. On his father's side, an uncle had died from alcoholic excess, and his grandfather had been eccentric and very peculiar for a lifetime. The early life of B. was noted by his solitary habits, and his great mechanical genius. He graduated at West Point at twenty-three years of age, with distinguished honors. His habits were correct, and he was strictly temperate except in smoking. For the next ten years he was engaged in the engineering department, and during the late war rendered very valuable services to the government, for which he was promoted. He became a deeply religious man, and worked hard, was devoted to his profession, and very irritable and severe to all who neglected their duty. About this time he was laid up four months from yellow fever in a southern fort. Recovery was slow, and while on a furlough at Philadelphia he became profoundly intoxicated, for the first time. A change of character dated from this event. His previous abstract manners, and cold stateliness, gave way to great familiarity, he was less exact and particular about matters of duty and etiquett. A year later he began to drink spirits at night alone in his quarters. Another year and he was occasionally intoxicated, and used the spirits all the time. His associates were bad, and the time was spent gambling and drinking. He was transferred to a frontier fort, and had a severe attack of malarious fever, from which he recovered with a more marked impulse to procure and use spirits. A change in the symptoms made him a periodical inebriate, with free intervals of from one to four months, during which he made active exertions to conquer the desire for drink. Delusions of persecutions, and suspicion, with the usual confidence in being able to stop the use of spirits anytime came on. During the paroxysm of drink, he would engage in all forms of plots and counter plots against those in the service with him of equal rank, and his superiors. When the paroxysm passed, he considered these means fully justifible for the time and occasion. He was repremanded, and transferred to other departments, but continually grew worse. His skill as an engineer suffered but little, but his executive power to oversee and direct, was greatly impaired. Finally a court-martial (one of which was an able surgeon, who has written well on mental diseases in the army), decided that dishonorable dismissal was the true remedy in this case. From this time he made no effort, nor seemed to have any care for himself. When intoxicated he was more and more irritable, and frequently involved in assault, which caused him to spend much of the time in jails and station-houses.

Comments.—The history of a defective nerve organization, with a special tendency to inebriety, was clearly marked in the case. Insanity and consumption are often found closely associated with inebriety. They are really all diseases of the same family, and merge into each other alternately. The children of consumptive or insane parents become inebriates, and inebriates have both insane and consumptive descendants in the next generation. Some form of traumatism followed from the attack of yellow fever, which developed the latent neurosis of inebriety, and was marked by the sudden, unexpected intoxication. After this he drank, not realizing how or why he did so, and each attack or state of drinking made it more and more difficult to stop. A change of character and habits pointed to a state of general degeneration and progressive disease. The use of alcohol seemed governed by changing conditions at first, and not until he became a periodic inebriate did this assume a settled form of degeneration. The line of progress, from the time of the first intoxication, was clearly traceable, and yet the court-martial ignored all possibility of disease, and assumed that a strong, vigorous-brained man, occupying an exalted place, with a wide future of position and honor before him, could sacrifice it all for the supposed momentary influence of alcohol. To-day this man is a chronic incurable, drifted about by the lowest diseased impulses, half conscious of his condition, from which he is more and more unable to extricate himself. Had he been put under active treatment at the outset, or soon after he developed a desire for drink, following the attack of yellow fever, he would in all probability have been in the service and respected to-day.

As showing the change of sentiment that is already recognized, the following case is mentioned in the *British Medical Journal*, occurring in the English navy: A surgeon was tried for intoxication, and sentenced to dismissal from the ship, loss of pay, debarring him from future promotion, and requiring additional term of service before retirement on a pension. In his defense it was proven that he had suffered from a severe attack of malarious fever on the African coast, and was under treatment five months in the hospital at Hong Kong; that he had drank from that time. Later he had severe domestic trouble, for which he used both alcohol and laudanum. From this time his mind and body grew weaker, hallucinations and delirium frequently appeared, although he was generally able to perform the duties required of him. The wine and spirits drank varied greatly, but steadily increased, and at times he actually had delirium tremens. Yet all this array of facts pointing to a disease was considered of no value by the court martial, who assumed that a man of character would prefer the wretched life and evils of inebriety to the opposite course: or, in other words, that a wilful, vicious propensity pervaded the mind of the man, which could only be driven out by punishment. The comments of the editor are significant of the dawn of a new era of rational science above the superstitious notions of vice and sin. He thinks the sentence severe, and that the victim should have had the advantage of the many extenuating circumstances, which would have at least indicated a condition of helplessness and irresponsibility. Finally, he regretted that the rule in the navy where all officers are tried by those of equal rank and position with the accused, should not be adopted. In the case first mentioned in this article the presence on the court-martial of a surgeon was of no advantage to the accused. The increase of inebriety in both army and navy has brought out many very striking cases, which have not been recognized as cases of disease, in most instances. But there is a general feeling among the officers who act as judges in these trials, to exercise great liniency in their judgments, and a half consciousness exists that in many of these cases a strange element of disease is present. This is in striking contrast with the foolish condemnation of President Hayes, who pardoned a number of these cases under sentence for inebriety. This act indicated a clearer recognition of the causes and remedies than all the extreme efforts of temperance men for a century. The exposure and changing conditions of living in both army and navy are very often active causes in producing inebriety. No greater injustice can be committed than the punishment of men engaged in this calling, who are inebriates, especially where the inebriety has appeared after their entrance into the service. All such cases demand hospital treatment, and if they do not recover should be discharged as broken down, disabled men.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Radical Cure of Cancer.

Announcement concerning essays upon this subject offered in competition for prizes:

The undersigned, who, in October last, was delegated to receive competing essays on the subject of the radical cure of malignant diseases, announces that three essays were presented. In the consideration of their merits the assistance of Dr. George B. Shattuck, editor of the *Boston Medical and Surgical*

Journal, was invoked; and it has been decided that no essay is worthy of a prize.

The same subject, namely, "The Probability of the Discovery of a Cure of Malignant Disease, and the Line of Study or Experimentation likely to bring such a Cure to Light," is proposed for essays to be presented in competition not later than the first day of December, eighteen hundred and eighty-three (1883), to the undersigned, who, with such assistance as he may select, will be the judge of their merits.

For the best essay on the above subject a prize of One Thousand Dollars will be given, the right being reserved to withhold the prize in case no essay of sufficient merit be presented.

The sum above mentioned has already been deposited in the New England Trust Company, of Boston, subject of a call of the judge.

The essays must be legibly written in English, and neatly bound. Each one must bear a motto, and be accompanied by a sealed envelope bearing the same motto, and inclosing the name and address of the writer. They will all remain in the possession of the donor of the prize for convenience of reference, and the privilege is claimed to publish the successful one, with the name of the writer. No writer, however, surrenders the privilege of retaining a copy of his essay, and publishing it.

The decision concerning the merits of the essays will be made chiefly from a practical standpoint, it being the object of the donor of the prize to obtain suggestions by which a search for a cure for cancer may be instituted.

For the donor,

J. COLLINS WARREN, M. D.,
58 Beacon Street,
Boston, Mass., U. S. A.

March 1882.

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Whence Originated the Doctrines of Hahnemann?

Dr. Oliver Wendell Holmes, in a late lecture, in the *Boston Medical Journal* in answer to this question says that lately in looking through the Ortus Medicinæ of Van Helmont, Elzevi's edition, 1652, he noticed an odd looking prefix, Butler, to one of the chapters. He says: "I found that this was the name of an Hibernian, a great personage formerly, as he represented, at the court of King James the First of England. At present, however, this distinguished stranger was provided with lodgings at the public expense in the jail of Vilvoorden, a town of Belgium. Here it was that Van Helmont, a very credulous, very whimsical man of genius, a believer in the sympathetic ointment and other nonsense of the kind, became acquainted with the distinguished stranger, who bore the family name of the Duke Ormond. The captive wrought some wonderful cures which Van Helmont reports. The first case was that of a monk suffering from erysipelas. The Irishman dipped a pebble quickly into a teaspoonful of oil of almonds, and instantly withdrew it. The patient took some of the oil and was cured at once. Second case: a washerwoman; complaint hemicrania. He dipped the same pebble quickly into a teaspoonful of olive oil, gave it a lick with his tongue, and put it back into his waistcoat pocket. He poured that teaspoonful of oil into a small vessel of oil. One drop of this he rubbed on the old woman's head. Immediate and permanent cure. Stupified astonishment of Van Helmont, to whom the son of Erin, "My darling, if you don't get on so far that you can cure any disease with a single remedy you will remain a greenhorn till you are a greybeard." The next patient was a nobleman; a bad case of gout as it would seem. He was to touch the pebble every morning with the tip of his tongue, wash the lame parts with a cheap lotion prepared in the laboratory of nature, and be well in three weeks. If he will make me well, says the count, I will pay him his own price and deposit so that he shall be sure of it. Our friend with the pebble takes this in high dudgeon; he will never help the miserable creature; does not want his money; is as good as he is. Van Helmont could not prevail upon him to treat the case and became skeptical. But not long afterwards a fat friend of his wanted to be rid of his obesity. Butler gives him a small piece of the pebble which he is to lick once or touch swiftly with the tip of his tongue every morning. In three weeks he was a span narrower about the chest. Van Helmont begins to have faith again, and being himself ill, as he thinks from poison, sends a flask of oil to Butler, who is still in jail, and who dips his pebble in it. One drop to be applied externally in one or more places. Entire failure of relief. Skeptical once more—our inquiring philosopher. But next, his wife is relieved of a dropsical swelling, and the servant maid of an ill-cured erysipelas, and a widow of a stiff arm, all by one or more drops of the oil, and an abbess of loss of power in her right arm by only touching her tongue to the pebble. Then I asked Butler, says Van Helmont, "Why so many women were cured at once, while I at sword's point with death and full of pains in all my joints and organs got not the slightest relief." The Irishman gave a plausible answer, which silenced if it did not satisfy the learned simpleton.

Thus the essence of the infinitesimal doctrine is in this most curious chapter of the Ortus Medicinæ. Hahnemann mentions the name of Van Helmont in his Organon and I have little doubt that he borrowed his infinitesimal doses, smelling of remedies and other inventions from this chapter.

Van Helmont entirely anticipated Hahnemann in insisting upon the use of simple remedies. "I believe," he says, "that simple remedies in their simplicity are equal to the cure of all diseases, and consequently," he adds, "the dispensaries, wishing to compound and correct many ingredients, lose everything, and by a hidden blasphemy, as it were, undertake to supply the divine insufficiency." Where Hahnemann got his third great doctrine, that itch is the cause of seven-eighths of chronic diseases, I do not know, but I notice that Van Helmont has a good deal to say about that disease, from which he himself suffered for many months, and what he says may very probably have set Hahnemann thinking about it.

Thus it appears that as early as the middle of the seventeenth century the essential doctrines of Hahnemann were promulgated and that Hahnemann must have been familiar with them.

Sanitary Tracts for the People.

We have received one of a series of sanitary tracts issued by the Citizens' Sanitary Society of Brooklyn, N. Y. The object of the tracts is "to enlighten the public regarding the need of improving the sanitary conditions of schools, private dwellings, etc., and to organize and stimulate effort in that direction." Each tract is prepared by a specialist, and those we have seen are fresh, terse and practical. The tract just before us treats of "A Warning to Workingmen." Others published treat of "Scarlet Fever and its Prevention," of the Summer Diseases of Children," of "Dangers from Damp Cellars," etc. These tracts are furnished to such as desire to distribute them by the secretary of the society, Chas. F. Wingate, 173 Sterling Place, Brooklyn, N. Y. The price of five hundred copies is $2.50; smaller amounts at proportionate price, also larger ones. The nature of these tracts is such that we think their wide distribution among the people will be of great service to the cause of sanitary science. We think their study by the people will tend to develop in the average mind the idea that to be a doctor requires a wide and varied knowledge and an undoubted honesty. Besides the diffusion of these facts will enable the doctor to do far more for the interests of his patients in that they will be able to better cooperate with him in his efforts to change morbid to healthy processes.

Through these tracts the people can be reached without the suspicion that the doctor is advertising himself in an improper manner for purely trade purposes. We hope that similar societies may be formed in every town, and that their tracts may be scattered broadcast over the land. If their work shall be equal to that of the society before us, they will deserve the support of all good men of any rank or race.

New York Code of Ethics—Views Respecting It by Leading Physicians in New York and by the County Societies of that State.

The *Medical Gazette* gives some letters expressing the personal views of their authors on the new code:

Prof. A. Flint says: "I am for retaining, substantially, the Code of Ethics adopted by the American Medical Association in 1847. I would not interfere with entire freedom of opinion, but so long as homœopathists, eclectics, *et id genus omne*, retain these designations and remain in an attitude of hostility to legitimate medicine, I cannot see how members of the regular profession can, with propriety or self-respect, affiliate with them."

Dr. Frank H. Hamilton says: "In my opinion, the action of the State Medical Society was unwise in every point of view. I do not think it is calculated to promote the interests, either of the science of medicine or of the people whom we serve; I sincerely hope that the action will be rescinded at the earliest opportunity."

D. W. A. Hammond thinks both codes as bad as possible and that no code would be better.

Dr. Louis Elsberg thinks that the National Association, with its present regulations, could not admit delegates from the New

York State Society, but he thinks the Association should either alter its code to suit the present state of things or abolish it.

Dr. Willard Parker "thinks the new code is a great mistake. If we have rules they should be positive and not 'may be.'"

Dr. Alonzo Clark thinks that as the outsiders sail under false colors, honest men cannot have professional intercourse with them. The New York State Society should have applied to the National Society for a change in its Code of Ethics, giving its reasons for the changes it desired and waited for its action. Its present action is secession from the other States.

The following county societies of New York have repudiated the State Society's code: Niagara County Society, Saratoga County Society, Onondaga County Society, Ontario County Society, Wayne County Society, Rockland County Society, Queen's County Society, Courtland County Society, Sullivan County Society, Monroe County Society, Orange County Society.

We have not had any statement of any county societies which have adopted the new code. Two have thus far refused to take any action respecting either code. Thus it seems as if the county societies of New York were unlikely to approve of the new code of the State Society.

Meanwhile the sentiment of disapproval of both its code and the method of its adoption by the New York State Society comes up from every part of the land. We venture the statement that if the gentlemen who adopted the New York code had been regular attendants of the meetings of the American Medical Association, they would have so understood the medical profession as never to have taken the action they did take. These gentlemen blundered in that they did not sufficiently study the entire medical profession before they attempted to force by secession a revolution in the professional associations of medical men. We never have believed in the persecution of any person or persons for their beliefs or practices. But we have always believed it wise for both individuals and associaions to protect themselves from all who would damage or destroy their existence. No doubt that without a written code there would still be a large number who were gentlemen by birth and education who would have no improper association with the unworthy. But others not belonging to this class, would be without any restraint of the former and gradually become medical guerillas. To most it is needful to define the term gentlemen from the medical standpoint. If a better definition can be given than the one laid down by the association's code we should be glad to see it. In any event we would be glad to have the entire code carefully restudied by a commission of our best and most trusted men, and if something better for the common good of profession and people can be devised that shall meet with general approval, then by all means let us have that thing.

Association of American Medical Editors.

The thirteenth annual meeting of this association was held in the court house at St. Paul, Minn., Tuesday, evening, June 6. As neither the president nor the secretary were present, Dr. N. S. Davis was made president, and Dr. Shoemaker secretary *pro tem.*

The register showed present the representatives of twelve different journals. A large number of medical gentlemen were also present as guests of the association.

As neither the president nor the secretary had provided any materials for the consideration of the association, the subject of the propriety of the publication of a medical journal by the American Medical Association was introduced by Dr. H. O. Marcy, of Boston. He very strongly advocated the measure as one which would advance the interests of medical journalism, of the American Medical Association, and the medical profession generally. The matter was discussed pro and con by most of the members present. The general conclusion was that when a reasonably safe method for the establishment of a medical journal in the exclusive interests of the entire profession as represented in the American Medical Association, could be devised and put into operation, then there would be a general congratulation on the part of the medical editors. In short, the editors thought that a journal such as proposed would be a valuable accession to medical journalism, and in no manner antagonistic to their individual journals. It was also believed that the American Medical Association needed a journal of its own to defend its own interests as opposed to the interests that were trying to disintegrate it. The great objection in the minds of most was the difficulty of obtaining a man to take charge of the work who would be able to combine the elements of success. To be at once a scholar, a gentleman, conversant with the needs of every portion of the association in all parts of the United States, unbiased by any sectional influences, honest in thought and deed, of the highest executive ability, a fearless advocate of the interests of the entire profession without doing harm to any local interests, a man capable of attracting to his side the best workers of the land, was thought to be a task calling for care, labor and the highest discretion. That it is possible all admitted and desired.

On the announcement by the committee on nominations of Dr. N. S. Davis as president, he called the attention of the association to the unenviable past record of the association. He showed by a review of the past that in no respect has it fulfilled the objects of its founders. If it was to continue thus in the future, he must decline the honor proposed. But if the members would awake to the work and make it a success in the future, he would gladly co-operate with them in the work.

A motion to disband was now made by Dr. Brodie. This called forth a very general discussion on the question, and the expression of a very general determination to make the association of more definite value in the future.

The new secretary promised to so organize the work for the coming year that plenty of short papers would be on hand to occupy the time not required for discussion. Further, he will make efforts to have the president's address given before a general assemblage of the American Medical Association, as well as before the editors. There is no doubt but that a very profitable meeting could be held yearly if the executive officers took pains to organize the matter and secure papers, etc., in the same manner as is done in the small local societies. We are glad that the association has come to the conclusion that work is required for the prosperity of any medical society.

We have great faith that the secretary will bring to the duties of his office the disposition to do the needful work and to make the next meeting a success.

The officers elected for the coming year are:

President—Dr. N. S. Davis, of Chicago.

Vice-President—Dr. W. M. Carpenter, of New York.

Secretary—Dr. J. B. Shoemaker, of Philadelphia, Pa.

Adjourned to meet at the call of the secretary.

American Medical Association—Thirty-Third Annual Meeting.

The notices calling this meeting contained some remarkable statements. Thus, in addition to the excursion rates offered by most of the railroads west and south of Detroit, it was said that the three great railroads leading west, north and northeast of St. Paul would give free tickets to delegates and their families to travel on their roads during the entire month of June. Thus they could go to Miles City, in the valley of the Yellowstone; to Winnepeg, in the Red river wheat fields of Manitoba, or to Duluth, at the head of Lake Superior. Besides, a series of receptions of regal magnificence had been provided in St. Paul and Stillwater. The questions pertaining to the late efforts to break down the code of ethics of the association called forth the attendance of many. But all were disappointed. Almost a thousand delegates registered their names. Far more than usual brought their wives, daughters and children. Hence, fully sixteen hundred persons connected with this meeting were precipitated upon the towns of St. Paul and Minneapolis. Though the hotels are small, all were in one way or another accommodated by the energy of the executive committee and the hospitality of the citizens.

The general meetings of the association were better attended than usual. There was nothing in the conduct of these meetings which reflected discredit upon the association. All questions were disposed of promptly and in order. The papers read in general session were, if possible, better than usual. The illustrations of Dr. Marcy of his paper on uterine fibroids were simply perfect. The combination of the solar microscope with the oxy-hydrogen lime light brought out in a marvellously distinct manner all the portions of the actual microscopical sections of the several uterine tumors discussed. It was thus demonstrated that the vessels in these tumors are remarkable for their absence from the tumors. Hence, it is useless to expect to reach good results from the use of ergot or any other remedies acting through the vessels. The sole remedy is extirpation.

The section work was not as good as could have been desired. This was due to the fact that many officers of sections were not present at all, and that most that were present had taken little or no pains to so organize the work of their sections as to make it a success. We hope the time will come when the nominating committee will be instructed by the association to nominate as executive officers of the several sections only such men as will be present at the meetings and as will take the time and trouble to secure the preparation and presentation of such papers and discussions as will render each section meeting a success scientifically as well as socially. Really each section is a distinct medical society. Personal solicitation and effort on the part of the executive officers should be made responsible for the success of each section meeting. If this matter could be reached in no other manner it would be well to consider the advisability of making the office of secretary of the several sections permanent, and paying the needful expenses of the office. The chairmanship could be retained as an office to be rotated about yearly among the distinguished workers in each special branch.

We are fully convinced that great injustice is done the medical profession by the present workings of these sections. We are as fully convinced that the adoption of the suggestions to which we have alluded would be attended with a great improvement. If any better plan can be suggested, we shall be glad to accept and advocate it.

The manner in which the ethical question, arising from the late action of the New York State Medical Society, was disposed of, left nothing to be desired. In this respect the existence of the judicial council served an excellent purpose.

Will the N. Y. society continue to deliberately exclude itself from membership in the association? The next meeting of that body will probably settle this matter. In so far as we were able to learn from the gentlemen from New York, it seems quite certain that the N. Y. society will speedily be brought into harmony with the national one.

The question of an association journal made progress toward its solution. As will be seen from the report printed elsewhere the matter is now in the hands of a board of trustees to further develop the matter and report at the next meeting. It seems more than probable that it is only a question of time as to the issue of such a journal.

The reception of the association at St. Paul was simply princely. Such as availed themselves of the passes given them, will have broader and more correct ideas of the resources of the mighty west. All will be broader and wiser men for having attended this meeting of the association. Of the good to the nation from this mingling of heads and hearts of those devoted to the relief of human ills, none can form an adequate estimate.

Our sister city, Cleveland, will have to be up and stirring to make as good a showing as St. Paul.

One feature, which deserves more serious consideration than it has received, relates to the place of meeting. Very much of the benefit to be derived from meetings such as these flows from the friendly intercourse, in the intervals between the sessions. To facilitate this it seems desirable that there should be an abundance of hotel accommodation. For this and other reasons to which we shall direct attention at another time, it seems proper that the association should meet at Washington frequently. Dr. N. S. Davis in a resolution suggested every alternate year. Of this we heartily approve. The Association can pay all its own bills, and thus can meet wherever it chooses. We hope this system will prevail. Washington has an abundance of hotel accommodation, is the seat of national government, has the best medical library on the continent, etc., etc. The association's library could thus be made a matter of interest to the individual members, as well as to the librarian.

There were many questions introduced relating to the general polity of the association to which we shall call attention at another time. It were ungracious not to recognize the untiring efforts of the committee of arrangements, and especially of its chairman, Dr. A. J. Stone, in promoting the pleasure and profit of every delegate.

Memoranda.

Prof. Hunter, of Greifswald, the celebrated German surgeon, died in May, aged 44.

Prof. Von Langenbeck has resigned his professorship in the University of Berlin.

Dr. T. B. Peacock, late physician to St. Thomas Hospital, London, Eng., died suddenly June 1st.

At its late meeting, the Massachusetts State Medical Society refused to admit women doctors to membership.

A late issue of the *London Lancet* records the details of a case in which death followed the simple extraction of a tooth. The case was a woman aged 50, giving no previous history of any severe illness of any sort.

Prof. Henry J. Bigelow has resigned the Professorship of Surgery in Harvard University, after being connected with the school for 33 years.

On June 6th died James Spence, F. R. S., Professor of Surgery in the University of Edinburgh. He was 70 years old. His lectures on Surgery were published in 1864.

Dr. C. F. Kellogg, in the *St. Louis Courier of Medicine*, reports the case of a woman who had carried in her vagina a hard rubber ring pessary for eleven years. But even then she would not permit it to be removed.

There are three different claimants for the real parasites of tuberculosis, Baumgarten of Koningsberg, Koch and Klebs, Schuller and Aufrecht. The methods of each are different and the parasites described. Just now Koch has the lead of the professional mind.

The *Louisville Medical News* says: "Years of observation as a teacher of anatomy has demonstrated to it that no vest pocket anatomist or Anatomical Remembrancer ever persistently figured in the college lecture room or quiz class which did not have behind it either a dolt or an ignoramus."

Dr. Geo. W. Campbell, late Professor of Surgery in McGill Medical College, of Montreal, Canada, died May 30, aged 72. For more than a generation he has exercised a powerful influence in moulding not only the college with which he was connected, but the profession of his state.

The third annual session of the American Surgical Association was held in Philadelphia, May 31, June 1 and 2. A considerable number of excellent papers were read and discussed. Prof. S. D. Gross was elected President, and Dr. J. R. Weist, of Indiana, Secretary. The next meeting will be held in Cincinnati, O., next May.

A second decennial revision of the Catalogue of Alumni of Bellevue Hospital Medical College is being prepared for publication, and we are requested to ask that all graduates send their present address, at once, on a postal card, to the Historian of the Alumni Association, Bellevue Hospital Medical College, New York, N. Y.

The Buffalo *Medical Journal* says that "the control of the graduates of medical colleges is in the hands of the professors. If an over bold curator impertinently offers to question this he is summarily dropped. Curators or counselors are in fact figure heads, well masked to deceive the public." Yet curators are the strong feature of the Buffalo medical college.

Dr. Herman Canfield announces that he has purchased the late country seat of Gen. Burnside at Edgehill, near Bristol, R. I., and fitted up the same as a private sanitarium for such patients as can best be cared for in this manner, as weakly children, bottled babies, convalescents from acute diseases, nervous disorders, chronic disorders, excepting those of the throat and lungs.

It seems that since the Warring System of Sewerage was constructed in Memphis, Tenn., the mortality of the city has increased. It is impossible to say whether this is due to the existence of poisonous germs or agents lying in the soil, or to defects in the system. It is more than probable that it is due to the connection of the houses with the sewers, by which means the sewer gas more or less escapes into the dwellings.

The *American Journal of Otology* reports the following: "A doctor of extensive practice suffered from a crackling noise every night just after going to bed. He happened to mention his sufferings to one of his lady patients, who told him of a case she knew where the noise was found to be due to maggots in the pillow. The doctor examined his own pillow when he got home and found plenty of maggots, the pillow having gone far toward decay. A new pillow cured him."

Italy gives us the bacillus malariæ, by Tommasi Crudelli; Germany, through Klebs, gives us the bacillus typhosus, and through Koch the bacillus tuberculosis; France through Pasteur, gives us the bacillus anthracis; and America, through Forman and Wood, gives us the bacillus of diphtheria. There are several countries to be heard from yet before all the bacilli are catalogued. It does not appear that any considerable number of observers have confirmed these several discoveries. Nor does it stand in evidence that the means of destroying these bacilli in the body has been found.

The *Medical Gazette* publishes a letter from the dean of a medical college, in which a price list of the several doctors and druggists of the United States is asked for. We quote one sentence: "I am starting an Embriotic-Pioneer-Medical College and I must, of necessity, noise it around the world to make it pay me." This is a frank expression of the state of things in most medical colleges as they are at present constituted. Purely private, personal, commercial enterprises. Perhaps the wonder is that they are as good as they are.

Dr. E. Ingalls, in a recent paper before the Illinois State Society, describes the effects of the law to regulate the practice of medicine in that state thus: "I cannot see wherein it has accomplished more than to secure a somewhat imperfect registration of the doctors and midwives of the state and satisfactory mortuary returns. In spite of it, quacks practice with impunity, the same as before; revoking the license of a well known practitioner, who, under the convenient disguise of an alias, is guilty of most unprofessional acts, does not prevent him from continuing his vocation." He pleads for relief from the present state of things. But his remedy seems to us worse than the disease. He would place matters more fully than now in the hands of politicians.

Larrabee says, "Quackery consists in this; that while with the regular scientific physician all things are held in common, all truths are shared, quacks, by conspicuous words and advertisements, lead the people to believe that they possess ideas not known to the regular profession, and this alone is their hold upon the people whereby they gain a livelihood. When by chance the community looks in on the regular profession, they are surprised to find that the quack has nothing new, nothing that is not borrowed from legitimate medicine." In short, if all would be content to be known simply as doctor, there would be an end to schism. On no other ground can the honest regular practitioner meet in council the disciples of the healing art. This platform is as broad as accumulated knowledge and experience can make it. They alone are responsible for results who refuse to adopt and live by it.

The *California Medical Journal* (electic) gives the following character to the regular practitioner: "He is a bigot, a slave, or a fool all combined. He is a bigot because he will not investigate other systems, a slave because he dare not, and a fool because he cannot. We hail this new departure of our New York brethren with pleasure. It will be of no special benefit to eclectics or homœopaths, but it will be of incalculable benefit to our allopathic brethren. They will be able to learn something new and useful. The homœopaths can teach them the value of small doses properly administered. The eclectics will open up a new materia medica and teach them positive and direct medication, in place of their uncertain and haphazard therapeutics. We look for the time when the New York code shall be universal, and all creeds and distinctions of schools abolished. All shall be scientific physicians and eclectics." Thus the New York code is to introduce a medical millennium.

Dr. W. O. Baldwin, of Alabama, in a letter to Dr. Sayre, on the New York code, says: "I deem it the first article of common courtesy as well as the dearest right in the code of common justice that each profession as a whole be held final and authorative over its general affairs as well as the professional conduct of its members. On no other ground can it be worthy of the name of a profession. On this basis alone its enactments have supreme force so long as they do not touch on the prerogatives of others or violate the usages of society. Beyond a doubt, the new code as established by New York, inaugurates a policy which, if successful, must prove fatal to all worth and well being of the profession. To have a standard as a profession, it must be self originated and self upheld. Neither from law nor public opinion can it accept such a standard, and hence if it yield at this point, it yields everything. It ceases to be a profession; it is a mere handicraft."

Dr. O. W. Holmes says, "that he suspects that the prevalence of homœopathy in this country is due to the fact that the imaginative sex and its psychological leaders and followers have a greater power than in Europe."

Again, "So far as I can take an account of stock, the present assets of homœopathy consist of a pleasing and sonorous designation, a nomenclature of symptoms, with sets of little phials, containing globules, which are the prettiest and most facinating of amulets, arranged to correspond with the nomenclature, a collection of provings, which prove more about the prover than the questions to be proved, and a doctrine which slips on or off like a kid glove, according to the company in which the practitioner finds himself."

Again, "All plausible, large promising, false doctrines, seize, like epidemics, on their predestined, because predisposed, victims. You will lose a patient now and then to a homœopathist or a clairvoyant; they go where they belong. Ephraim is joined to his idols; let him alone. But do not allow yourself to believe, because this new country is a breeding place of Mormanism, of homœopathy, of clairvoyance, that polygamy is going to break up the sanctities of the American household, or the fancy practitioner displace the educated, scientific, rational physician in the abiding confidence of the great American public."

Again, "We must not deny that there is such a thing as faith cure, quite independent of any special divine intervention. Every form of medical imposture can show such cures, for the imagination is a very powerful physiological agent. They are numerous just according to the impressibility and the credulity of the class to which the impostor appeals. Women are oftener cured than men; nervous diseases oftener than others; peasants oftener than princes; poets oftener than men of science; clergymen oftener than lawyers; Catholics oftener than Protestants—see the 'collection of crutches' at Mount Ste Anne figured in *Century* for May. Such are the incidental good effects which the worst cheat who ever sold rain water as a precious remedy for all evils may challenge as the result of his mendacity and impudence."

From an editorial in the *Nation* we quote: 'The Guiteau case has brought strongly into prominence the dangers to which the labors of "experts" in drawing fine distinctions about insanity are exposing the legal responsibility of all that class in the community which is most likely to commit crime. To hear them talk about such a case, one would suppose that all criminal trials should be conducted by doctors, and that all crime should raise a presumption of the criminal's insanity, and that nothing should be sufficient to upset this presumption except proof that he has been a man of very regular life, of very clear judgment, of high integrity, of great modesty and unselfishness, of strong family affections, and of great pluck and persistance. If he is dissolute, he is insane; if his opinions are foolish or weak, he is insane; if he is sharp and unscrupulous, he is insane; if he is conceited and selfish, unkind to his wife and children, fickle of purpose, and unsuccessful in his calling, he is insane. If, in short, he belongs to the class which in all ages has committed nine hundred and ninety-nine thousands of the acts which put the existence of society in peril and make courts and police necessary, he is insane, and we must either let him go free, or shut him up in some such way as not to alarm or shock the tribe to which he belongs. According to the experts, in fact, the penal justice of society should exist only for the occasional lapses of the class to which it owes nearly everything of value in it—the steady, sober-minded, upright, industrious and successful."

Editor's Book Table.

Ninth and Tenth Registration Reports of Michigan.*

These volumes show in many respects a great advance over previous ones. The elements upon which the compiler labored were more accurate. Neither the public nor the profession in general are educated so that they are able to appreciate at their real value such labors as are exhibited in these volumes. We were especially interested in the studies of the causes of death. In connection with each important disease, is given the atmospheric condition during the time in which the deaths occurred. From these facts we learn that the greater number of deaths from pneumonia occur during the time when the air contains most ozone. The greatest number of deaths from croup occurred during months in which the air contained less than an average amount of vapor.

The proportional mortality from diphtheria has constantly increased since 1869. There are more deaths from scarlet fever in cold dry weather than in warm moist air. Rheumatism was most frequent during a cold damp atmosphere.

The vital statistics of Michigan show that the deaths from diarrhœa occur when the air is hot and dry relatively though moist absolutely, conditions favoring excessive perspiration. This state of things has been found to be true when several months of the year for several years are studied and also when a series of years are studied, the hot years being those in which diarrhœa is most fatal. There is also a great diminution of ozone or an entire absence of it during the months and in the places in which diarrhœa is most prevalent.

These and a vast number of other facts relating to vital statistics are not only expressed by figures but by skillfully devised diagrams so that their bearing can be most readily determined. At another time and place we shall present more of these facts in their different relations.

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*NINTH AND TENTH ANNUAL REPORTS RELATING to the Registry and Return of Births, Marriages and Deaths in Michigan for the year 1875. By Dr. H. B. Baker, Superintendent of the Vital Statistics of the State. Under the General Direction of the Secretary of State. Lansing: W. S. George & Co. 1881. Two Volumes, pp. 330 each.

The state is certainly to be congratulated upon the very superior manner in which these statistics have been presented for the common good. It would be a gain if sufficient clerical force could be placed upon this work so that the compilation could be accomplished more rapidly. Thus the last volume before us is composed of materials collected six years ago. We do not see any reason except the parsimony of the state in providing the necessary clerks why the work should not be issued within a year after the collection of the data.

Cathell on The Physician Himself.*

What should the physician add to his strictly scientific acquirements? To answer this inquiry is the object of the work before us. A moment's reflection will convince any person of experience that the things to be added to scientific knowledge in order to make an accomplished physician are very numerous.

The code of ethics tells us some things that must be added to our scientific acquirements, and by experience we gradually learn other things. But the aim of Dr. Cathell has been to help the young to learn at least some of these things by a pleasanter method than personal experience. On the whole his suggestions are those of common sense and in the line of the development of the best professional character.

Thus he says: "Never recommend sexual intercourse as a remedy for self-pollution, nocturnal emissions, spermatorrhœa, hypochondriasis or acne.

"If people risk syphilis, gonorrhœa, bastardy or exposure, or commit rape, adultery, or self-pollution, let it be on their own responsibility, not on yours. Perfect chastity is entirely compatible with good health; and I know of no disorder of body or mind in which fornication is necessary."

Again he says: "Probably one of the greatest fortes you could possess, is the power of discovering who are the ruling spirits in the family, and securing their faith and keeping them satisfied with you and your treatment."

Again he says: "Keep ever in your mind that many people seem to be two-thirds spiritual and one-third animal, and the others seem to be but one-third spiritual and two-thirds animal, between which are all intermediate grades. If you attempt to treat all these alike you will certainly fail."

Every young physician would get invaluable suggestions from this work, and even older ones will find it of interest, as it discusses questions rarely touched in our published literature.

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*The Physician Himself, and What He Should Add to His Strictly Scientific Acquirements. By D. W. Cathell, M. D. Baltimore: Cushings & Bailey. 1882. Cloth; pp. 184.

Duhring's Treatise on Diseases of the Skin—Third Edition.*

Only about a year separated the issue of the second from this edition. Yet the author has made a critical and exhaustive revision of his work. Recent studies in the microscopical anatomy of the skin compelled him to rewrite the chapter upon its anatomy and physiology. New cases have been introduced illustrating rare forms of disease. New observations, personal experience, new therapeutics are to be found on almost every page. Of course the general features of the work are unaltered. It is still unquestionably the best text book on this subject to be had anywhere. Its clear, concise, easy style, its exhaustive statement of all known facts pertaining to a general consideration of each subject, its uniform practical bearings upon real clinical work render it invaluable alike to the medical student and the general practitioner. It will be found in the library of all active progressive practitioners of medicine. It is a thoroughly good book, elegant, trustworthy, complete.

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*A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M. D. Third edition; revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1882. Cloth; pp. 685. Price $6.10.

Transactions of the National Association for the Protection of the Insane.†

Besides the routine record of the meeting this pamphlet contains four papers. Nathan Allen discusses insanity in relation to the medical profession and lunatic hospitals.

C. L. Dana considers "The asylum superintendents on the needs of the insane, with the statistics of insanity in the United States. E. C. Seguin describes the function of a consulting staff to lunatic asylums. Dr. J. C.

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†Proceedings of the National Association for the protection of the insane and the prevention of insanity, paper, pp. 55, G. P. Putnam's Sons, 1882.

Shaw gives an account of his second year's experience with non-restraint in the treatment of the insane.

Among the defects of the system of insane hospital management, Dr. Allen points out the following:

1. The separation of the physicians of the asylums from the general profession.
2. The erection of so large and expensive buildings.
3. The aggregation of so large a number of diseased persons, which renders it impossible to secure the best sanitary condition of the individuals, and the best chances of cure.
4. The present system tends directly to confine a knowledge of the treatment of this disease to a few individuals.

He suggests among other things that the hospitals for the insane should be built smaller, and be devoted exclusively to the work of cure. The incurables should be placed in different establishments, supplied with all needful care.

The entire report is suggestive to every thoughtful person.

Report of the Surgeon-General of the Navy for 1880.*

In addition to sanitary suggestions for improving the health of the navy, and an exhibit of its cost in full detail and its present condition, we find an interesting report of some studies of the composition and microscopical structure of the air as it was found "out of doors" and in "bed-rooms," etc. The structural elements thus found have been photographed and bound in the volume before us. Thus we find exhibited from the air of a bed-room, crystal salts of fat acids, fat crystal forming from an epithelial scale, phycomes nitans, leaf hairs. From the out-door air we have photographs of mucor and bacteria, mycelium of a minute fungus, bacilli, micrococci and nucleated cells, leaf hairs and pine pollen, epithelium, compound spore of sphæria.

Other things than these were found but not photographed. The methods by which these results were reached, as well as the details, are all of general interest. Except for some such work our navy does not seem to be of much good. But the amount of scientific work done is scarcely commensurate with the expense. The department is interested in the cultivation of sanitary knowledge, and through one of its members, Dr. Gihon, has accomplished much in this direction. Indeed it were the highest exercise of medical skill to keep the members of the navy entirely well. The report reflects the greatest credit upon the several officers of the navy in a medical point of view.

Dalton on the Experimental Method in Medical Science.*

This volume constitutes the second course of the Cartwright Lectures of the Alumni Association of the College of Physicians and Surgeons of New York, delivered during January and February, 1882. The three lectures of this course treat of "Galvani and Galvanism in the Study of the Nervous System," of "Buffon and Bonnet in the Eighteenth Century" and of "Nervous Degenerations and the Theory of Sir Charles Bell." These several subjects enabled the author to treat in a very entertaining manner the historical evidence demonstrating the value of the experimental method in the developing of scientific medicine. The lectures are given in Dr. Dalton's peculiarly charming manner. If one begins to read one lecture he is sure to read all. For the sake of learning the facts in regard to this method of medical study we hope that every man in the profession may carefully read these lectures. Respecting the general utility of lectures of this scope there can be no question with those familiar with the results of similar courses of lectures yearly given in England upon a variety of subjects. We wish our wealthy men could be induced to establish a large number of similar courses of lectures in America to be yearly given to the world.

White's Medical Register of New York, New Jersey and Connecticut.†

This is the twentieth volume of this register. To the medical residents of the three States mentioned above it is simply indispensible. To others it gives the most reliable information respecting the medical men and medical institutions of those States. It also has a condensed and corrected account of the

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*Sanitary and Statistical Report of the Surgeon-General of the Navy for the year 1880. Cloth; pp. 469.

*The Experimental Method in Medical Science. By Dr. J. C. Dalton, M. D. New York: G. P. Putnam's Sons, 1882. Cloth pp. 108. Price, $1.25. For sale by J. MacFarlane, Detroit.

†The Medical Register of New York, New Jersey and Connecticut, for the year commencing June 1st, 1882. Published under the supervision of the New York Medico-Historical Society. William T. White, M. D., editor. New York, G. P. Putnam's Sons, 1882. Cloth pp. 264.

National Medical Organization. It registers the names of 5,916 physicians, 1,621 of which belong to New York City. It contains a very useful list of all the medical colleges arranged by States. We think the editor would do well to add a list of the several medical journals, with their addresses. This would be useful to such as wished to communicate with all the medical journals. As far as we are aware there is no annual publication of all the medical journals. This is the more to be desired because of the frequent changes occurring, frequent additions and diminutions in their number, etc.

Jackson on the Treatment of Sterility.*

This paper calls attention to the causes of failure in the treatment of sterility. Thus:

1. The defective state of our knowledge of the vital processes concerned in conception and gestation.
2. The frequent presence of undetected disease and malformations of the ovaries, Fallopian tubes, and neighboring organs and tissues which prevent healthy ovulation and the transmission of the ovule to the uterus.
3. The general adoption of a physical theory of sterility resulting in an undue reliance upon an exclusively mechanical and surgical treatment.
4. Uncured disease of the uterus, which, while not necessarily or usually a bar to impregnation, disqualifies that organ for performing its functions of nidation and gestation.
5. Want of persistence in treatment.

Englemann on the Difficulties of Ovariotomy.†

In this paper attention is directed to the following points:

1. Enter the peritoneum at the upper angle of the abdominal incision mindful of the safety of an enlarged bladder.
2. Endeavor to secure deep and firm union of the abdominal incision by carefully and closely placed sutures during the operation, and proper support afterwards for months.
3. Ligate all bleeding points, use the finest braided silk, cut short and drop at once.
4. Avoid routine Listerism, and especially the carbolic spray over the hands of the operator and into the abdominal cavity. Cleanliness, not carbolic acid, is necessary. Keep sponges clean and warm, but not carbolized.
5. Late operations are the scourge of surgeon and patient in this valley. If an operation is indicated, operate early, as the patient's chances decrease with the growth of the tumor and the failing of health.

Leonard's Vest Pocket Anatomist.*

As the edition before us is the eleventh revised it is scarcely needful to make any comments upon it. That it has met the desires of a very large number of medical students is evident. Its originality lies in its condensation of the larger works of Gray, etc. As a supplemental aid to the study of these it may prove helpful, certainly more so than many other compends in the market. The condensation is done with great accuracy and good judgment.

Potter's Comparative Therapeutics.†

It is scarcely a year since we noticed the first edition of this work. It presents the therapeutics of the regular and homœopathic practices in a manner adapted for easy and quick reference and comparison. The material has been taken from the principal treatises relating to this subject. The arrangement is very convenient and plain. To those desiring such aid in their therapeutical studies this work will prove of great service.

A STATEMENT BY DR. MACLEAN OF THE LATE **Controversy between the occupant of the Chair of Surgery in the Medical Department of Michigan University and the occupant of the same chair in the Homœopathic Medical School of the same University.**

This can be obtained from Mr. O. J. Fay, of Ann Arbor, for ten cents. It contains thirty pages and is a full statement of one side of the question.

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*ON SOME POINTS IN CONNECTION WITH THE TREATMENT OF STERILITY. By A. Reeves Jackson, A. M., M. D. Reprint from American Gynæcological Transactions.

†OVARIOTOMY, DIFFICULTIES, DIAGNOSTIC AND OPERATIVE, by Dr. Geo. J. Englemann. Reprint from *Am. Jour. Med. Sciences*, paper, pp. 16.

*THE VEST POCKET ANATOMIST (Founded upon Gray), by C. Henri Leonard, A. M., M. D. Eleenth revised edition. Price 75 cents Cloth, pp. 82. Detroit, The Illustrated Medical Journal Company, 1882.

†AN INDEX OF COMPARATIVE THERAPAUTICS, with tables of differential diagnosis, a pronouncing dose list in the genitive case, a list of medicines used in homœopathic practice. Memoranda concerning clinical thermometry, incompatability of medicines, ethics, obstetrics, poisons, anæsthetics, fees, asphyxia, urinary examinations, homœopathic pharmacy and nomenclature, etc. By Samuel O. L. Potter, A. M., M. D. Second edition. Chicago: Gross & Delbridge. 1882. Cloth, pp. 279.

Hygiene in Relation to the Eye. By Dr. C. J. Lundy. Paper read before the Ann Arbor Sanitary Convention, pp. 8.

An excellent paper worthy of careful reading by all.

The True Aneurism of the Brachial Artery at Its Upper Third, Cured by Compression Maintained for ten hours by means of a Conical Pad. By L. E. Holt, M. D. Reprint from American Journal Medical Sciences. Paper pp. 13.

Civilization in its Relation to the Decay of the Teeth. By Norman W. Kingsley, M. D. S., D. D. S. Paper read before the International Medical Congress. New York, D. Appleton & Co. Paper pp. 10.

The Treatment of Delay in the First Stage of Natural Labor, with Special Reference to the Early Use of the Forceps. By Dr. J. E. Allen. Reprint from the Atlanta Medical Register. Paper pp. 9.

Refraction of the Eye, as distinguished from accommodation, and estimated as an equivalent, from the index of refraction. By Dr. H. Culberton. Reprint from the Cincinnati Lancet and Clinic; pp. 3.

Observations on Hemiplegia, Based upon Eighty-one Cases, with Special Reference to Cerebral Localization. By Dr. A. D. Rockwell. Reprint from the Medical Record. Paper pp. 14.

Acute Dementia Occurring in an Old Man. Recovery after Two and One-half Months of Treatment. By C. H. Hughes, M. D. Reprint from the Alienist and Neurologist. Pp. 6.

The Condition of the Eyes in Two Cases of Fatal Anæmia. An Anatomical Investigation. By Dr. Boerne Bettman. Reprint from the Archives of Ophthalmology. Paper pp. 33.

On the Nomenclature and Classification of Diseases of the Skin. By Dr. L. Duncan Bulkley. Reprinted from the Archives of Dermatology. Paper; pp. 16.

Inebriety. A Study upon Alcohol in its Relations to Mind and Conduct. By T. L. Wright, M. D. Reprint from the Alienist and Neurologist. Paper pp. 23.

The Special Therapeutic Value of Hyoscyamine in Psychiatry. Reprint from the Alienist and Neurologist. By Dr. C. H. Hughes. Pp. 12.

Removal of a Cyst of the Pancreas, Weighing Twenty and One-Half Pounds. By N. Bozman, M. D. Reprint from the Medical Record. Paper pp. 2.

The Opium Habit Successfully Treated by the Avena Sativa (Oats). By E. H. M. Sell, M. D., Reprint from the Medical Gazette. Paper pp. 8.

Gonorrhœal Ophthalmia, Its Complications and Results. By Dr. C. J. Lundy. Reprint from the Michigan Medical News. Paper pp. 8.

Observations on the Surgery in Children. By Edward Borck, M. D. Reprint from the St. Louis Medical Journal. Paper pp. 13.

Annual Address Before the Medical Society of the State of California. By Dr. G. G. Tyrrell. Paper; pp 25. 1882.

The Mental Status of Guiteau. By Dr. Walter Channing. Reprint from the Boston Medical Journal. Paper pp. 22.

Report of the Resident Physician of Bringham Hall, a Hospital for the Insane, for 1881. paper; pp. 2.

Static Electricity as a Therapeutic Agent. By Dr. James Knight. Paper; pp. 15.

Proceedings of Societies.

Thirty-Third Annual Meeting of the American Medical Association.[*]

The sessions of this Association began at St. Paul, at 11 a.m., June 6th. The capacious opera house was packed with delegates.

After an opening prayer by Bishop Ireland, Dr. C. J. Stone, chairman of the committee of arrangements said:

Gentlemen of the Association: It is my pleasant duty to welcome you, not only to the city of St. Paul, but to the whole northwest. It is also my duty to thank you for the honor you have conferred upon us all by meeting here, and it is a further pleasure to introduce one who should be one of us, as his deeds upon the battlefield compare most favorably with ours by the sick bed. Gentlemen, allow me to introduce to you Gen. Lucius F. Hubbard, governor of the State of Minnesota, who will welcome you royally.

Gov. Hubbard stepped to the front of the platform, and standing at ease and with much fervency of manner, delivered the following address:

Mr. President and Gentlemen of the American Medical Association: The people of Minnesota feel highly honored by the presence in their midst of so distinguished a body of gentlemen as this, and at their desire and in their behalf I bid you a cordial welcome. If the people of this State fail in the observance of any virtue, it is not that of hospitality. We regard that an essential element of our reputation as a people, and we assume that the stranger coming among us will regard himself no longer such, after grasping the hand of welcome which is here extended always.

While we regard your visit to our State on this occasion as highly complimentary and of advantage to us, we believe you feel it is not altogether lacking in substantial benefit to yourselves. It is sincerely hoped that you may not limit your visit to the time required for the discharge of the professional or official duties that call you here, but that you may avail yourselves of the opportunities and facilities that will be afforded you to acquire a somewhat comprehensive knowledge of the varied attractions and advantages we possess. There is a characteristic of our country of peculiar interest to, and that invites the investigation of gentlemen of your profession. The exhilarating and vitalizing influences of our climate have made

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[*] For aid in preparing this report we are indebted to the St. Paul Pioneer Press.

MINNESOTA THE MECCA

for health seekers in years past, and as a direct result of your visit at this time, we shall expect to greatly widen and strengthen our reputation in that regard. With assurances of health that do not disappoint, and opportunities for the acquisition of wealth that can but satisfy, we invite the brain and muscle of the world to a home in our midst.

But it is not my purpose, nor would it be appropriate here, to extol the beauties and advantages of our State. That pleasure shall be yours, gentlemen, after you have looked upon our heritage and become acquainted with us. It is rather my purpose as it is my pleasure, to greet you in the name of the people of the State; to assure you of their hearty welcome which they would be glad of an opportunity to individually express, and to give voice to their wish that your deliberations at this convention may be of a character, as no doubt they will, to advance the science and elevate the proud profession you represent.

Protests against the admission of the delegates from New York State Society were now read. From Dr. S. D. Gross, from Indiana, Missouri, Arkansas, Illinois, Kentucky, Tennesee, and very many other states. The following letter, in conjunction with the protests, was received with the greatest approval by the association.

No. 285 Fifth Avenue, May 27, 1882.—I. Martin Smith, M. D., Secretary New York State Medical Society—Dear Sir: I have just received from you my certificate as delegate from the New York State Medical Society to the American Medical Association to be held in St. Paul on the 6th of June. As the State society has ignored the code of ethics by which they were bound as members of the association, I cannot see how they can expect their delegates to be received by an association whose laws they refuse to obey and which must therefore refuse them admittance.

I therefore respectfully decline to act as its delegate and hereby return my certificate.

Very respectfully,

LEWIS A. SAYRE, M. D.

An appeal was also received, to be laid before the judicial committee, from Dr. J. C. Colton against the action of the Pennsylvania Society, and a protest against the admission of Dr. Joseph Nevill of Omaha. It was also announced that the judicial council would meet at 5 p. m., in Odd Fellow's hall.

Dr. A. J. Stone, chairman of the committee of arrangements, after the applause the reception of the protests occasioned had died away, again stepped forward, and in his official capacity reported on behalf of the committee of arrangements, the report being verbal and hailed with shouts of satisfaction. It was, in brief, as follows:

The Manitoba, Duluth & Northern Pacific grant free passes to all the regularly registered members of the association. The passes are good for the month of June, and will carry them anywhere on the above mentioned roads that the visitors may desire to go.

The citizens' reception at the Metropolitan and the various private receptions were announced, and every delegate present, with his friends and family, were cordially invited to be present.

The visiting delegates must apply to the committee of reception, wearing white badges, and they will be amply provided for if they cannot find rooms at any of the hotels. It is desired that the members give all the trouble that they can to the wearers of the white badges. An invitation to attend the reception at D. M. Sabin's, at Stillwater, Thursday night, for which the Omaha road has provided a special train, was also extended. The time of departure and return will be announced to-day.

The members have been invited to an excursion from Duluth on the lake, but it was left to the association to determine when it would be most convenient to accept the invitation.

All ladies accompanying gentlemen taking advantage of any of these excursions, must have a separate ticket. This can be secured by applying to Dr. Stone for a separate certificate. Tickets can then be obtained from the general managers of the roads offering free passes.

Vice-President Dr. P. O. Hooper, as acting president, now delivered the annual address, the president, Dr. J. J. Woodward, being detained in Europe by ill health.

After referring in fitting terms to the absence of Dr. Woodward, and asking for the indulgence of the association in the performance of his duties, he said:

To-day, gentlemen, we commence the thirty-third annual meeting of this association. A generation of mortals have been born, lived and passed away, since the meeting of the convention which recommended the formation of this body. Most of those great spirits who inaugurated this enterprise, and gave form and substance to the ideas there entertained can mingle with us no more forever. A few, upon whom "age sits with decent grace," still remain, revered for their wisdom and experience; and among these *facil princeps* is he (N. S. Davis), to whom more than to any other one individual we are indebted for our permanent foundation, and without mention of whose name there could be no appropriate reference to our beginnings.

We have reached a natural resting place, where we can pause and look back, and take account of our journeying and our progress. The years of the existence of this association have been years of wonderful activity in mental and moral speculation and thought. The bounds of the horizon of investigation have been stretched out. The fierce light of truth has disclosed the harmless nature of many a veiled superstition. Much regarded for centuries as but the dream of philosophers has proven reality. Predictions never supposed to be aught but theories have been verified. The chains and bolts of formalism have been broken; and the devotees of science have pushed their explorations with audacious courage in every direction.

After referring with some detail to the developments of general science and philosphy, he said:

In this lifetime of a generation of men, which has also been the lifetime of this association, what has been accomplished under its influence, amid all this restlessness and activity and earnestness? The purposes of the organization, as expressed at the preliminary convention, were to cultivate and advance medical knowledge; to elevate the standard of medical education; and to promote the usefulness, honor and interests of the medical profession. It is a source of congratulation that a spirit of harmony and friendship has characterized its annual assemblings, and cordiality and good feeling existed among its members. The interests of medical science have been uppermost in your minds; and a feeling of common brotherhood has bound you in a bond of sympathy. This is peculiarly an institution of the profession—by the profession and for the profession It is truly democratic in its workings; its doors stand wide open to the worthy, and, by its laws, every reputable physician in the land can be heard, either in person or by representative, upon all questions within the objects for which it was founded.

Have the hopes indulged in at its inauguration been fulfilled? If we listen to some carpers, who speak disparagingly of our efforts and progress, or to the murmured disappointment of others, who expected too much at once, our reply would be despondent. But I rejoice to say such is not the feeling, nor the voice of the profession generally. It may be granted, that everything aimed at, has not been accomplished; but certain it is, the association has been an active and powererful agent in disseminating useful medical knowledge; and no similar institution has ever been more successful in carrying out its chief object—the promotion of science. It was appreciated at the time, that the work undertaken was difficult, and would require time, labor, sacrifice and united efforts to accomplish. There was no organization. But few medical societies were in existence, and their influence was but slightly felt. Each society or community of physicians was a law unto itself; there was no medical code, acknowledged as binding and to which all could appeal. The medical literature of the country was in its infancy; there were comparatively few professional works, and of these scarcely any were by home authors. The medical mind was conservative, inert, slothful. This association arose, and a new order of things obtained. An eager desire for promised improvement and reform was awakened. State, and county, and city societies were formed in every State in the Union. The annual meetings of this body have increased in importance and usefulness until the American Medical Association occupies an advanced position, not only among philosophical associations, but also among the deliberative assemblies of the world.

The subject which has engaged most of your time and attention has been that of medical education, and reform in medical teachings; one well worthy of all the talent, and thought, and energy devoted to it by some of the ablest and most erudite scholars of the age. No language is too strong to express its importance to the profession, and the well being of society; no iteration too frequent to spur on endeavor in this cause. The reports of committees as published in our annual proceedings must convince every one of the great consequence of effort in this matter. Much has been accomplished. Medical schools have been founded, and the curriculum of studies extended; the standard for admission to the profession raised. Finally, to put into effect the many devised and conflicting views offered year after year without any practical result, the idea of the American Medical College association was adopted, and its subsequent organization effected, as the best means of carrying into operation the wishes and objects of this association. It may be that association has not done everything anticipated by its most sanguine advocates; but it cannot be denied that through this instrumentality many and important changes calculated to advance and elevate medical education have been made. Experience and experiment will give increasing assurance of its value. Its certain success is only a question of time.

But, going beyond this vexed question of education, much has been done for science. The thirty-two ponderous volumes of your transactions speak for themselves, containing contributions from many of your thousand members, representing the medical faculty of every State and Territory, which have attracted attention, and stimulated thought both in this country and abroad.

I am satisfied that a brief enumeration of the valuable additions to our literature during the last ten years, as culled from these books would astonish even those who have been regular attendants at our meetings. Want of time and the limited scope of this address will preclude me from more particularly directing your attention to the many original essays, monographs, and reports that can be read with interest and profit by the profession. All through these luminous pages are the evidences that our members have been imbued with the spirit of curious inquisitiveness which characterizes our times, and have made signal additions to the great mass of facts and knowledge, while every day is enabling us to dispel some shadow or lay bare some mystery. You have made certain your standing in that great army whose mission is to combat and conquer disease and improve the condition of man, and whose power is increasing every day. And, in my opinion, no body of scientists in the world has done more in this direction and in the worth of their contributions to medical literature. It is also reasonable to believe that these assemblies with their interchanges of thought, and imposition of duties through sections and committees, have been powerful stimulants to the production of original works.

The establishment of a medical journal in lieu of the present annual volume of transactions, has been brought to your attention so frequently, and the subject was so ably presented by your honored president, at the meeting held in New York, that it seems a work of supererogation to mention it so soon again, especially as the report of the committee read at our last meeting, was so convincing that further argument in its favor seems wholly superfluous. I sincerely hope the able committee which now has the matter in charge will see their way clear to an earnest, unanimous and persuading recommendation for adoption at this meeting.

To this association belongs the honor of introducing to the attention of the people of the different states, the importance of sanitary laws. That your efforts have been in a great measure successful is evidenced by the popular appreciation of sanitary organizations. Legislatures are now directing their attention to the framing of laws bearing upon questions of hygiene, and make sanitary measures one of their legitimate and necessary subjects for regulation ; and boards of health for states, cities and hamlets, are increasing on every hand. The establishment of a national board of health was a natural result from the repeated and persistent recommendations and the urgent demands of this body, speaking as was seeming, with the voice of authority. Whilst referring to this matter of sanitation, there is one important subject deserving your most serious attention. That terrible scourge, the small-pox, has recently been declared by the national board of health an epidemic in this country. The deaths from this malady are comparatively enormous, and there should be no occasion for this great mortality. Vaccination and re-vaccination, duly performed, and under proper conditions are considered nearly a certain prophylactic. The people, as well as the profession have been neglectful in this matter. Many who admit the advisability are criminally careless: and others from ignorance and superstition refuse to take advantage of this preventive. Some way should be arrived at whereby the lives of the masses of the people may be protected from the deluded or obstinate individuals who neglect this great boon for saving human life. If possible, provision should be made by law for universal vaccination. It may be argued that compulsory vaccination would be an infringement of human rights. But this position is untenable. Governments are established and laws enacted for the protection and happiness of the greatest number of the people. The liberty and free action of the individual should be interfered with as little as possible. But something of natural right must be given up to the State; some restrictions must be placed upon all. Some trades can be carried on only in certain places, and in certain manners. Property rights have to be violated for the common weal. Houses are blown up to save disastrous conflagrations. Trade is impeded, and commerce delayed by quarantine laws. The yellow flag of pestilence, and the cross mark of danger are exhibited in infected neighborhoods, and the inhabitants confined to those quarters. The compulsory education to a certain standard, is conceded to be proper in the freest, most liberalized, and most enlightened countries. The principle seems firmly established that it is the duty of the State, in its effort towards the highest civilization, to pass laws whose object is to stay disease, to prolong human life, to prevent the recurrence of those plagues and pestilences which have their seat and growth among barbarous nations, and to cultivate within reasonable limits, the mental nature of the subject.

* * * * We have a code of medical ethics, the best ever given for the government of medical men, of acknowledged force and effect, of universal acceptance in every state of the union; and it is now too late for any single physician or state society to oppose or set at defiance the moral power of this body. Had the association done nothing else than to originate and adopt these beautiful precepts, which should govern in our relations to each other, our patients and the public, it would have done a service entitling it to everlasting gratitude, and to an imperishable name in the annals of our country. There has recently been exhibited by a few a disposition to be restive under the operation of certain portions of the code. It may not, perhaps, be becoming in me to discuss this matter here, as it will be for judicial investigation and decision; but I may be permitted to suggest, that we should not retreat from our well chosen lines of defense. One mistaken movement would involve us in a whirl of inconsistencies, tending to place us in a false attitude and bring dishonor upon the profession. The broad lines of demarcation between the irregular and the true physician should never be obliterated. Our association stands prominently forth in its high purposes, and its means of accomplishing these purposes are distinctly enunciated.

In the discussion of all ethical questions, a spirit of liberalism has always mingled with a never sleeping sense of imperative obligation to the established truths of science, of order, of law. I do not say that the time may never come, for there is no perfect work of mortal hands, when your organic laws will require modification and amendment; but until the time does arrive when the impulse of the great heart of the profession shall be felt, and radical changes be demanded in the light of a perfected knowledge, let us maintain without internal strife, the unsullied standard of professional honor and morals, now "full high advanced" in our midst, and decline association with those who will not recognize that flag, or who, having once recognized, have abandoned it. We should, without reservation, declare the perpetuity of this association, and renew our vows of fidelity to its constitution and laws.

Of the thirty-three distinguished members of the profession who have occupied the honored position of president of this association, only thirteen now survive. But a few days ago, he who immediately preceded me in the performance of these offices, was suddenly called by the stern messenger whose summons brooks no refusal. At his post of duty, at the noon of his day's labor, with but a moment's warning, he was bidden to lay down his tools and his unfinished work for other hands. In the fullness of his honor, and his fame was he stricken. To his beautiful character as a citizen, a husband, a father, a friend—it may here be impossible to do justice. But ill would this hour be filled, if we did not pause to point to the brilliant career of Hodgen, as worthy of emulation and imitation. Of solid attainments, quick perception, clear judgment and an energy remarkable above all his fellows, his place was assured among the eminent men of his time. Of him it can be truly said that he was endowed with "the king-becoming graces, as justice, verity, temperance, stableness, devotion, patience, courage, fortitude."

These rapidly thinning ranks remind us that we, too, who form the link between the founders of the association and the younger members of the profession must soon yield our places, and it behooves those who are to follow us to reflect that in a short time the burdens and cares necessary to sustain the honor, usefulness and dignity of the profession will rest on their shoulders. The permanent withdrawal of only a very few of our experienced and revered veterans would not only entail a sad and serious loss upon us personally, but would be almost irreparable to the legislative and judicial administration of our affairs. Our younger brethren, some of whom are meeting with us for the first time, will pardon me, then, if I urge them to enter upon these responsibilities with a zeal and determination equal to that of those highly cultivated and brilliant men who were present at the birth of this society, and who have maintained its character untarnished up to its present vigorous manhood.

I have attempted, by reference at least, to direct attention, gentlemen, to our present condition, our relation to science, and our duties. If anything I have said may appear presumptuous, you will charitably impute the blame to an earnest desire for the successful accomplishment of the aims of this association, and a jealous regard for its honor and good name; believing as I do, that if we go forward in the future as the noble men before us have gone, in the quest of truth, with earnest seeking and unselfish devotion, we will be of good in our day and generation, and fitly perform the work found to our hands to do.

On motion of Dr. Wm. Brodie, the thanks of the association were tendered Dr. Hooper for his address, and a copy requested for publication.

On motion of Dr. J. S. Cohn, of Philadelphia, the secretary of the association was directed to cable Dr. J. J. Woodward the regrets and best wishes of the association.

The following regrets were then read:

WASHINGTON, D. C., Jan. 31, 1882.—Gentlemen of the American Medical Association: At your Richmond meeting last May you conferred upon me the great honor of electing me your president for the present year. At that time I was just recovering from a serious injury and was unable to be with you. I cannot now find language to tell you how highly I prized and shall always prize this token of your esteem. Although, of course, I fully understood that your action was especially to express your appreciation of the services of the medical corps of the army and of their various efforts to advance the interests of medical science in America, yet I could not but feel the compliment of being selected by you as in some sort the representative of that noble body of medical men, and I looked forward with the greatest pleasure to meeting you at St. Paul. Unfortunately, on account of seriously impaired health, I find this will be impossible. I must trust your generosity to forgive my inability to perform the duties entrusted to me. May I not also hope for your sympathy and good wishes.

Your obedient servant,

J. J. WOODWARD,
Surgeon U. S. Army.

A letter of regret was read from Dr. H. D. Holton, of Vermont, a member of the judicial committee.

By request of the Woman's National Christian Temperance Union, Dr. N. S. Davis presented the following:

Whereas, Alcoholic intemperance is a prolific cause of disease, and the prevention through the education of the people is one of the most powerful antidotes,

Resolved, That we approve teaching the children and youth in the schools and educational institutions in this country, as facts of hygiene, the physiological dangers and evils resulting from the use of alcoholic beverages, and

Whereas, It is the acknowledged duty of the state to provide for such education of the people as is essential to good citizenship,

Resolved, That we recommend the state legislature to enact laws requiring the physiological dangers and evils resulting from the use of alcoholic beverages taught in all schools supported by public money or under state control.

Accepted and referred to the section on medical jurisprudence.

After appointments of the place for meeting of the delegates from each state for the election of a member of the nominating committee the association adjourned till 10 A. M. June 7.

Pursuant to adjournment, the association was called to order by Dr. P. O. Hooper.

After prayer by Rev. D. R. Reed, Dr. A. J. Stone, chairman of the committee on arrangements, made a short verbal report, informing all delegates who held round trip passes from Chicago to St. Paul that the passes had been extended until the 10th of July, and would be good until that date. He also stated that the committee had made preparations for from three to five hundred visitors, and he begged the delegates to bear in mind that, when double that number arrived, some little delay in providing for them all at once was unavoidable. The committee had endeavored to meet the emergency as speedily as possible, and, at the same time, he begged the home delegates and visitors to remember that St. Paul always took care of the stranger in its midst first, but he assured them that the home delegates would be properly provided for. He also announced that those having ladies with them, who were not provided for, would be attended to by Dr. C. A. Wheaton, at the Metropolitan hotel. He announced that the special train to convey the delegates and their friends to Stillwater to attend the reception at the residence of Hon. D. M. Sabin, would leave the union depot this (Thursday) afternoon at 5 o'clock and would be held subject to the wishes and convenience of the party (each one of whom he constituted a conductor) as to the hour of returning. Those who were unable to leave at 5 P. M., could take the 6:15 P. M. train via White Bear lake. He then referred to the receptions to be given that evening at the residences of a number of private citizens and speaking for himself, he hoped they would all come and see him and stay as long as they desired. He also stated that he was in receipt of a number of letters and telegrams from all over the northwest inviting the association to visit them, and informed the delegates that their certificates of membership would be honored by every line of transportation in the Territory of Dakota, and the entire Northwest.

As a sample of the invitations received the following from Fargo, D. T., was read and loudly applauded:

CITY OF FARGO, OFFICE CITY CLERK,
FARGO, D. T., June 5, 1882.

WHEREAS, The American Medical Association, including in its members many eminent scientists, scholars and benefactors from every portion of our own country, and representatives from other lands, assembled in annual session this week in our neighbor city of St. Paul;

Resolved, That we hereby extend to the members of this distinguished body a cordial and earnest invitation to visit our rising young city; see for themselves the beauty and prosperity of this garden spot of the new world, the Red River Valley of Dakota, and accept the hospitality of our people, which is tendered them with open hearts and hands and houses. W. A. KINDRED, Mayor.

CHAS. P. THOMPSON, City Clerk.

The members of nominating committee were now announced.

Dr. J. H. Packard, of Philadelphia, from the committee on journalizing the transactions of the association, made the following report:

At the last meeting of the association the undersigned were appointed a committee to digest and report in detail, as early as possible, a plan for the establishment of a weekly journal by the association, embracing the salary of the editor, the time and place of publication, the terms to outside subscribers, and such other particulars as may enable the association to arrive at a just conclusion as to the feasibility of the enterprise and the propriety of their undertaking it. Deeply impressed with the gravity of the pecuniary and scientific interests involved, the committee have carefully considered the subject, and beg to present the following report:

An essential preliminary of any scheme of this kind must be the securing to the association of an annual income much larger than the largest it has ever had since its organization. Your committee of last year, in their report, gave an estimate of the probable expense of publishing a journal; but in that statement they included simply the cost of paper and printing, and the probable sum for which the editing could be secured. To these two—the former $2,500 and the latter $6,000—must be added, however, other incidental and unavoidable expenses, which would scarcely be less than $5,000. Hence it may readily be seen that it would not be safe to estimate the cost of the proposed undertaking at less than $13,500. To propose to an association varying from year to year in numbers and membership, as our present body has hitherto done, and an annual income never above $6,000, falling sometimes as low as $2,500, the assumption of an expense such as that just mentioned would be evidently preposterous. Unless the association can be made far more stable and comprehensive in its character, with a truly permanent membership, embracing and interesting a vastly greater proportion of the profession, it is idle to talk of its establishing and maintaining a journal.

To this end the first step is to adopt the changes in the plan of organization, etc., of the association, proposed last year, by virtue of which the membership would be thrown open to all members of state and county societies upon application by the payment of an annual fee of $5—such membership to constitute the holder a subscriber to the journal, and to be forfeited by non-payment within three (four or six ?) months of the commencement of the journal year. Any such member being elected a delegate to a meeting of the association, might be charged $1 additional as a registration fee, toward defraying the expenses of the meeting. Should any delegate not be already a member by application, we would suggest his being taxed $6, and thereby constituted not only a member of the association but a subscriber for the Journal for that year.

We would here call attention again to the fact that in section 5 of the by-laws there is a provision which has often been so construed as to work great damage to the association, and the repeal or alteration of which would, in our opinion, be a judicious measure. The first paragraph of that section fixes the annual assessment upon each delegate and permanent member at $5, and expressly states that payment is due from the latter, whether attending the meeting or not. In the second paragraph of the same section it is provided that permanent membership shall be forfeited by non-payment of dues for three successive years. It would seem sufficiently obvious that here, as in the case of other societies, the payment due at the end of three years should be that for those three years, viz., $15, but an impression has prevailed that one annual payment in three years is all that is needed to keep membership alive. Hence many permanent members take no notice of the annual call for their subscriptions, until the third time, when they remit each $5, and consider their account with the association as settled. Any one of them may decline payment altogether, and forfeit his membership, but he can at any time renew it by being again appointed a delegate. If, according to the custom now too prevalent, he saves himself by one payment of $5, he really has his permanent membership, whatever it may be worth, at the rate of $1.69 per annum.

Those who have given their attention to the preceding portion of this report will perceive that if the proposed change in the conditions of membership in the association be made, this section of the by-laws would be done away with. But in case of failure to make this change, we would suggest the importance of the passage of a resolution expressing the sense of the association that the payment referred to in the second paragraph of section 5 of the by-laws is not that of $5—the dues for one year, but of $15 the dues for three years. The committee would also say here that in the absence of any specified mode of altering the by-laws, by previous notice or otherwise, it seems to them to be competent for the association to make such changes by a majority vote, at any meeting, just as in the case of any ordinary business.

According to the last census returns, it would appear that the number of practicing physicians in the United States is in the neighborhood of 90,000. Perhaps this estimate is too high; but assuming it to be approximately correct, it may be supposed that more than one-half—say 50,000—belong to the "regular" profession. Now, if 3,000 of these should become members of the association on the terms above stated, the mere expenses of the journal would be provided for and there seems to be no extravagance in such an expectation.

In the foregoing discussion of the expenses of the proposed journal and means of meeting them by the association, it will perhaps have been noticed that we have said nothing of the revenue likely to accrue from the advertising columns, which would be an important offset to the cost of the work, but one of which it would be difficult to make a correct or nearly correct estimate. Yet it should not be wholly overlooked, and would probably be an element of much consequence in the calculations of any publisher with whom an arrangement might be contemplated.

Supposing the association to have succeeded in putting the pecuniary question on a satisfactory basis, we may now consider the mode in which the business part of the enterprise could be carried on. Were it possible to select at once a perfectly suitable man to take charge of this whole matter, such an arrangement would be the most economical plan, and the experience of the British Medical Association is strongly in its favor. But unless the right person could be more readily found than it seems to us at all likely, it would perhaps be safer and more feasible for the association to enter into a contract with some well known and responsible publishing house to issue the journal for them, upon such terms as may be found available. To go into the details of such an arrangement would be premature and at present useless, but we may say that the association should strictly reserve to itself the control of all but the purely business part of the enterprise, even as regards the advertisements to be admitted, and that the editor and his assistants should be designated, employed and paid under its direction.

This leads us naturally to the mention of a matter of very great moment—the propriety of obtaining a charter for the association. We are not unmindful of the fact that this is a step requiring careful consideration in view of possible embarrassments in matters of discipline, etc.; but it may be that it is a necessity on the part of a body contemplating a business undertaking like that under discussion, involving the making of contracts and the assumption of large annual expenditures. It may be that no prudent publisher, manager or editor would be willing to assume the duties devolving upon him in such a scheme, upon the mere promise of a few men connected with a society of uncertain membership and equally uncertain income, unless those men gave their personal obligations for the expenses incurred. This they can scarcely be expected to do; and unless the objections to such a course are insuperable, it would be better for the association to authorize its officers and standing committees to apply in its behalf for a charter. Such application may be made in any State to the proper court, or perhaps Congress might be asked to pass an act of incorporation. Upon these points it would of course be requisite to have legal advice.

Next, as to the mode of appointment of the editor. Upon the selection of a suitable man will hinge, in a very great measure, the success of the whole enterprise. He must be possessed of intellectual ability, firmness, tact, and judgment, free from partisanship, of high professional and moral tone, and of such standing as will enable him to attract the support and secure the influence of the best class of contributors. It is very desirable that the editor's relation to the association should be such as to leave him, as far as may be, untrammeled, while still responsible for the due discharge of his functions; that the arrangement should be such as to make it worth while for a suitable man to accept the position, and still to preserve for the association a just and equitable control of it. There would be obvious difficulties in the way of an election by the whole body annually, and it seems to us that the matter can hardly be placed to advantage in the hands of any of the existing committees. We would therefore propose that there should be elected by the association a board of trustees, nine in number, of whom three shall serve one year, three two years, and three three years; and that annually thereafter there shall be elected three gentlemen to take the places of those whose names expire, and to serve for the ensuing three years. We further suggest that when the establishment of this board is effected, a provision be introduced that retiring trustees be ineligible for re-election until the next annual meeting. It would perhaps be advisable that the various sections of the country should be represented in this board; yet for the facilitation of business the trustees should not be too far apart.

As to the mode of nominating the trustees, this might be done by the committee of nominations, or what would perhaps be better, by a special committee composed of the president of the association and the chairman of the several sections, at each annual meeting, the nominations so made to be acted upon by the association at its next annual meeting. In case of the death or declination of any gentleman so nominated before the election, another name might be presented by the same committee, or perhaps by a committee similarly constituted, to be voted upon at the same meeting which would have entertained the first nomination. In the hands of these trustees might be placed the appointment of the editor, which would be best made for an indefinite term, the engagement to be dissolved by either party only upon three months' notice; and if this is done by the trustees, the editor to have the right of appeal to the judicial council, upon whose motion, if they see proper, the matter may be brought before the association at its next annual meeting, and decided by a three-fourths vote of the members present. In case of the death or resignation of the editor, the trustees to elect his successor in the same way and on the same terms.

We would recommend that the appointment of the assistant editors be with the editor (subject to the approval of the trustees), and that the salary of the editor should be $6,000, out of which sum he should pay his assistants, making his own terms with them. The trustees should report annually to the association, giving a statement of the expenses and receipts of the journal; orders for such expenses to be honored by the treasurer of the association only when signed by the editor-in-chief, and countersigned by the chairman and two other members of the board of trustees.

As to the place of publication, your committee do not feel prepared to make any suggestion. It would, however, be desirable that it should be as nearly central as possible, and that it should not be lightly changed. Wherever a suitable editor can be found, there also it is probable that circumstances would favor the establishment of the publication office.

We recommend that the name of the journal should be "The Journal of the American Medical Association," and that the terms to outside subscribers should be $6 per annum.

It remains now for us to indicate a method for the actual setting on foot of this enterprise. We would propose that the board of trustees be appointed, and that they proceed at once to issue a circular to be sent to all regular physicians, as far as possible, in the United States; this circular to set forth the plan of the journal, the advantages looked for from its establishment, and the terms upon which it may be had. Should the responses to the circular be sufficiently encouraging—as for example if within three months 2,000 names should be secured, and pledges given or subscriptions received, the board might proceed to elect an editor and to make arrangements for the commencement of the publication at the earliest practicable period.

We would suggest that the committee of publication should be appointed as usual, but that they be instructed to be guided by the decision of the board of trustees as to the character of the publication, if any, which they shall make.

All of which is respectfully submitted.

[Signed] JOHN H. PACKARD,
N. S. DAVIS,
L. A. SAYRE,
I. S. BILLINGS,
B. COLE,
W. B. ATKINSON,
R. I. DUNGLISON.
Committee.

At the conclusion of the reading of the report, Dr. Brodie, of Michigan said that the matter was one of great importance to the association, and in order that intelligent action could be had thereon he moved that the report be printed and a special hour set apart to-morrow (Thursday) for its consideration.

Upou ascertaining that the report in full would be printed in the city papers, the motion to print was withdrawn, and the time for its discussion fixed immediately after the preliminary exercises this (Thursday) morning.

The convention then took up the first amendment proposed to the laws of the association, being one offered by Dr. D. H. Goodwillie to Art. II, Sec. 8, Permanent Members; strike out the words "but without the right to vote."

This proposed amendment gave rise to quite a spirited debate, but its fate was sealed by a ringing speech from Dr. Davis, of Chicago, who took grounds against it, because its adoption would have a tendency to disintegrate the local societies, and upon the further ground, that while the permanent members did not have a vote, they were permitted to participate in the debates, and voted indirectly through their local societies.

The amendment was laid upon the table by a decisive vote.

The following paper, by Dr. Chas. Dennison, of Colorado, was received and referred to the judicial council:

In order to correct a misconception which largely exists in the public mind, and to some extent prevails among members of the medical profession, as to the liberty of action authorized by this association in the treatment of disease, we deem it proper to make a declaration of principles broadly applicable to the healing art as sanctioned and practiced under the code, to-wit:

Rational medicine, being based upon experience and pathological research, demands absolute freedom in the selection and methods of administration of materia medica; and there is nothing in the code of ethics of the American Medical Association prohibiting the use by its members of any known and honorable means of combating disease. Furthermore, as contributing to the alleviation of human suffering, we hail with pleasure and gratitude every discovery in etiological and therapeutical science by whomsoever made. We, therefore, reject as untrue and obnoxious the term "allopathists," as applied to the members of this association by dogmatists and extremists without its fold. First—Because it tends to convey the erroneous impression that we are restricted in the choice of remedies and the method of using them, by other than the limits of natural science. Second—Because, for any association of men, claiming to practice the profession of medicine, to adopt a name based upon limited and conjectural theories of therapeutics, for the purpose of designating a particular school of medicine, we have always held and still regard as unscientific in principle and dangerous in practice.

At this point Dr. Connor, second vice-president, took the chair. A recess of ten minutes was taken to ventilate the hall which had become too warm for endurance.

On motion of Dr. Reed, the association took a recess of ten minutes, after which Dr. Connor, second vice-president, called the convention to order, and the programme of the morning was continued. Dr. J. A. Octerloney, of Louisville, Ky., was introduced and read a most admirable address, having for his theme The Practice of Medicine, of which the following is but a brief abstract:

Labor is not in a circle, but progressive, and labor in medical science has progressed rapidly, especially in more recent times. As new ideas have been evolved and new discoveries made, new names have been coined, until medical nomenclature is almost perfect. There has been more progress in this science in the past twenty-five years than in the 2,500 years preceding. It must take things as it finds them, and not as it would have them, and deals with facts as they arise. The practice of medicine has undergone a complete revolution—it is not to-day what it was one hundred years ago. In 1827 Bright's disease of the kidneys was not understood until that gentleman made the disease a special study, and his developments created a new era in medicine. There are few diseases more striking than inflammatory goitre, and yet until 1835 humanity had suffered more or less from it without physicians being able to determine what it was and the method of treatment. These are sufficient illustrations to indicate the progress of the science in the last century, but it would require volumes to give all the advancement in each specific line. The medical history of the nineteenth century has yet to be written.

The process of crystallization of new knowledge into general law has been slow. The truths discovered have not been always received on first presentation, and the general skepticism of the age has invaded the realm of medicine; but those who have doubted the revelations of medical science have generally been those who were skeptical in regard to most other things which have been well established. Socialists are many but their faith is very small. The foundations on which we are building were laid by those who preceded us. La Salius, Servitus, Harvey and Knox from a bright galaxy whose contributions to medical lore will survive the ages, while many whose names have never been inscribed on the roll of fame have bequeathed to us the best of their knowledge. Were a star to be blotted out now, its light would still reach us through the lapse of years; so when a good man dies the light from his life is seen for many years after he passes away.

To more fully illustrate the subject Dr. Octerloney mentioned several common diseases in which the practice of medicine has been either modified or revolutionized. He took up the subject of inflammation, which was at first defined as "a morbid state, in which the parts seemed to burn." This term, however, has almost lost its value as a scientific term, being applied to so many things, to many of which it has no real application. Afterward it was defined as consisting of four distinct elements, to which in later years was added a fifth, but the whole theory was overthrown when the circulating system was understood. It is now known that vascular disturbance does not in itself cause inflammation, but tissue disturbance is sufficient and in most cases is the exciting cause.

THE NERVOUS SYSTEM.

The brilliant workers in this field of medicine have not labored in vain, and nervous diseases of all kinds and in their most intricate forms are successfully treated. Pulmonary consumption is no longer the dread disease it was once considered, and its duration has been doubled since modern treatment has been applied to it.

"The lancet," some one has said, "is a little instrument of mighty mischief." But what the lancet was in former years to medical practitioners, the microscope is now to medical investigators, and its wonderful revelations in the infinitesimal world have kept pace with the revelations of the telescope in the starry world above us. Disease has been analyzed and its causes made known. Leprosy, that fearful scourge of the East in ancient times, has been shown by the microscope to depend on a vegetable parasite. The same instrument has shown that the exciting cause of typhoid fever is also a noxious parasite, and scarlatina and diphtheria fall in line under the same classification, being caused primarily by microscopic fungi. Malarial diseases were long referred to an element so subtle as to elude detection; but the same mighty instrument has shown that these disorders are due to a peculiar parasite found only in malarial spots and nowhere else. Were the medical world to-day to dispense with the microscope and the vast amount of knowledge obtained through its use, a great part of our knowledge of disease and the proper method of treatment would be taken away from us.

Dr. Octerlony concluded his address by saying that all the important knowledge now in the hands of the profession and the important discoveries in medical science had been contributed by the regulars, and not by the irregulars, and expressing the hope that in the years to come a Newton in medicine would be found who would do for it what Isaac Newton did for natural science.

The address was excellent and interesting even to those in the audience not gifted with a knowledge of the scientific terms employed in some parts, and at its close the speaker was greeted with a hearty round of applause from delegates and spectators.

At the conclusion of this address a partial report was made by the judicial council through its chairman N. S. Davis.

In regard to the Nebraska State Society referred to us last year, the council report that a careful examination of the documents and matters involved in the protest of certain members of the Nebraska State Association against the admission of said society to representation in the American Medical Association, shows no proper cause for such protest at the present time, and the council decided that the society is entitled to full representation by delegates to this association.

In regard to the resolution concerning the use of certain remedies controlled by a patent, copyright or trade-mark, which was reported from the section on practice of medicine and materia medica, and by the association referred to judicial council last year, the council has decided that inasmuch as the resolution includes matters not referred to in the code of ethics, and said code contains all that is necessary for the guidance of the medical profession, therefore the resolution should not be adopted by the members of the association.

NO ADMITTANCE FOR NEW YORK DELEGATES.

In regard to the protest against the receiving of delegates from the New York State Medical Society, which was referred to us, the judicial council decide as follows:

Having carefully examined the code of ethics adopted by the NewYorkMedicalSociety at its annual meeting in February, 1882, as furnished us by the secretary of said Society the judicial council find in said code provisions essentially differing from and in conflict with the code of ethics of this association, and therefore, in accordance with provision of rule 9 of the bye laws of this association, decide unanimously that the said New York Society is not entitled to delegates in the American Medical Associotion.

This report was received with long continued applause.

DR. H. O. MARCY'S ADDRESS.

The last paper at the morning session was read by Dr. H. O. Marcy, of Boston, who had for his subject Uterine Tumors. It was illustrated by views thrown on a screen from a solar microscope. These views were very clear and perfect, showing the peculiar formation of various tumors and the influence they had upon surrounding parts in the abdominal cavity. They were composed of sections of the uterus surrounding the tumors (which had been removed by Dr. Marcy) and prepared with great care by his assistant for the express purpose of microscopic investigation and practical illustration.

The method by which the lecture of Dr. H. O. Marcy, on uterine tumors, was demonstrated, the means used being a solar microscope and stereopticon, excited a large degree of interest, owing to the wonderful clearness and brightness of the subjects cast upon the screen. It seemed to be the general opinion of those present that this new solar instrument was truly a remarkable improvement over the ordinary stereopticon method of illustration. After the termination of the lecture, in obedience to the expressed wish of many of the physicians, the inventor, Dr. L. D. McIntosh, of Chicago, explained fully the principles of this solar microscope, an explanation that was listened to with much interest and close attention.

Owing to the lateness of the hour and the intense heat of the room, Dr Marcy was unable to do more than give the outlines of his paper. But this was enough to satisfy all that it was one of unusual ability and importance.

At 1 o'clock the association adjourned after passing a unanimous vote of thanks to Dr. Marcy for his entertaining lecture.

Pursuant to adjournment the association was called to order by Vice-President Hooper, at 10 A. M., June 8.

After prayer by Rev. M. N. Gilbert, Dr. A. J. Stone made his report, saying that the arrangements for the visit to Stillwater were completed, and included a trip on Lake St. Croix, a drive about the city, a visit to the state penitentiary, out of which he hoped all the delegates would escape without serious detention [laughter], and the reception at the residence of Hon. D. M. Sabin. He reminded the delegates that there were 112 trains arriving and departing from the union depot daily, and that the special train would leave the depot promptly at 5 P. M. and all not on board at that hour would be left at home, as he wished them all to remember that each one of them was at home in St. Paul. [Applause.] He also stated that arrangements had been perfected for a trip on Lake Superior, and also for return tickets good to July 10.

Dr. J. Foster Pratt, of Michigan, chairman of the committee on nominations, presented the report of that committee

At the conclusion of the reading of the report, Dr. Keller, of Kentucky, said that a resolution had been passed at the last annual meeting of the association, to the effect that no members should be appointed to office unless they were present. He noticed by the reading of the report that a number of nominations had been made of those not present. He therefore moved that the report be referred back to the committee for correction in this respect.

This motion gave rise to some debate, and Dr. Pratt explained that the committee was aware that such a rule had been adopted, but, after a full consideration of the matter, and for the best interests of the association, they had unanimously agreed upon the report as made.

The matter was finally referred back to the committee for further consideration.

The president announced, at this stage of the proceedings, that the time had arrived for the consideration of the special order, which was Dr. Packard's report in reference to the establishment of a journal for the association.

Dr. Davis, of Chicago, said that although he was a member of the committee which made its report yesterday, upon reflection he was convinced that some amendments were required, and he therefore offered the following

AMENDMENTS.

Resolved, That the interests of the association would be promoted by the publication of its transactions in a weekly medical journal under its own control, instead of in an annual volume as heretofore, provided it could be done without involving pecuniary embarrassment, or so far engrossing its funds as to prevent the annual encouragement of original investigation by its members.

Resolved, That so much of the report of the committee on printing the transactions as relates to the increase of membership of this association by application from members of State and local societies be and the same is hereby approved.

Resolved, That so much of the report of the committee in journalizing the transactions of the association as relates to the appointment of a board of trustees, nine in number, and their duties, be and the same is hereby adopted, and that the president of the association should appoint a special committee of seven to recommend to this meeting of the association the names of nine members for election to constitute said board of trustees.

Resolved, That the board of trustees so appointed be requested to agree upon a plan of a medical journal, to be called the *Journal of the American Medical Association*, and to send circulars explaining such plan, and asking pledges of support by actual subscriptions, to the members of the medical profession throughout the whole country, and thereby ascertain as reliably as possible what degree of support the proposed journal can have as a basis for commencing its publication; and that said board also proceed to ascertain and agree upon the best methods of publishing said journal, the best editorial services it can secure to take charge of the work, and the best plan for its issue.

Resolved, That said board of trustees be and are hereby instructed to retain under all circumstances, in whatever plans or contracts proposed for adoption, entire control over the advertising as well as other pages of the journal that is proposed to be established, and that said board report in full at the next meeting of this association, the plans upon which it has been able to agree, together with the response of the profession to its circular asking actual subscriptions to the proposed journal, and that the constitutional amendments proposed by Dr. Packard last year be continued upon the table until the report of the board of trustees is received and acted upon.

Resolved, That the treasurer of this association is hereby authorized to pay out of the funds in the treasury the necessary expenses of the board of trustees in printing and distributing its circulars, and in conducting its proper correspondence.

Resolved, That the committee of publication proceed to publish the proceedings and transactions of the present meeting, in a volume as heretofore, using all diligence to give it an early distribution to those entitled to receive it.

Dr. Davis supported his amendments in an earnest speech, and they were equally as earnestly seconded by Dr. Brodie, of Michigan, and were unanimously adopted.

Subsequently the president appointed the following named delegates as a committee to appoint the board of trustees, in accordance with the resolutions, viz :

Dr. L. A. Sayre, of New York.
Dr J. M. Toner, of District of Columbia.
Dr. J. Foster Pratt, of Michigan.
Dr. R. J. Dunglinson, of Pennsylvania.

Dr. Robert Battey, of Georgia.
Dr. W. J. Peck, of Iowa.
Dr. H. A. Morey, of Massachusetts.

Dr. A. L. Gibson, of the U. S. navy, offered the following preamble and resolutions, which, after some discussion were laid upon the table by a vote of 17 to 82:

WHEREAS, It appears from the amended form of the bill making the appropriation for the army of 1882–3, as recommended by the military committee of the senate, that the amount appropriated for the support of the Army Medical Museum and Library has been reduced from $10,000 to $3,000, therefore

Resolved, That this association views with great regret and strong disapproval, this attempt to cripple two institutions whose great value is recognized by the medical profession of the whole United States as well as of Europe.

Second—That in the case of the library, whose collection of medical journals has required years of unceasing effort to bring to its present completeness, the intended reduction will be specially injurious, as from their transient character such publications would be in many instances irreplacable.

Third—That the publication now in progress of the index catalogue of the library, the most extensive work of the kind ever attempted, makes it desirable that its completeness should not be lessened by the withdrawal of the means to procure correct medical literature.

Fourth—That the association expresses the earnest hope that congress will restore the appropriation to its former amount in the interest of the medical profession, and, therefore, of the community at large.

Dr. Gihon also offered the following resolution, which was unanimously adopted:

Resolved, That the American Medical Association heartily endorses and commends to congress the proposition of the surgeon general of the navy to establish at Washington, in connection with the bureau of medicine and surgery of the navy, and in co-operation with the American Public Health Association and the American Medical Association, a national museum of hygiene, which shall exhibit the history and progress of sanitary science by a collection of publications, articles, models, drawings, etc., illustrating defects and improvements in food, in water supply, bedding, clothing, marine architecture, house and hospital construction and removal of *excreta* and refuse, culinary, laundry and bath facilities, and for physical culture and exercise, and whatever else tends to the preservation of health and the prevention of disease.

Resolved, That this association earnestly urges upon congress the appropriation of the sum of $10,000 which has been recommended for the purchase of exhibits and their consequent care and preservation; and that the permanent secretary shall without delay send a copy of these resolutions to each member of the senate and house of representatives in congress assembled.

Mr. Davis offered the following, which was adopted, and the secretary instructed to forward a copy of the same to each member of congress:

To the President and Members of the American Medical Association:

WHEREAS, There are now employed between sixty and seventy physicians in the U. S. Indian service, by authority of the secretary of the interior; and

Whereas, All physicians appointed to positions in the U. S. Indian service are required to be graduates of some regular medical college, and

Whereas, There are now between 150,000 and 200,000 Indians depending entirely upon these appointed physicians for all medical and surgical treatment, and

Whereas, The present humane policy of the government is rapidly advancing the Indian civilization, thereby lessening the dependence in and consequent power of the "Indian Medicine Man," and greatly increasing the demand for, and labors of the regularly qualified physician; therefore be it

Resolved, That the constitution of the American Medical Association be so amended as to provide for the admission to its membership of two delegates from the medical bureau of the United States Indian service, to be nominated by the surgeon-in-chief of the Indian medical bureau and appointed by the secretary of the interior.

Resolved, That this resolution shall take immediate effect.

NECROLOGY.

Dr. Toner, of Washington, submitted the report of the committee on necrology, which was referred to the committee on publication without reading.

METEROLOGICAL AND CLINICAL RECORDS.

Dr. Davis, from the committee on "Atmospheric conditions and their relations to the Prevalence of Disease," reported that in accordance with the action of the last annual meeting stations of observation had been established at Boston, New York, Philadelphia, Baltimore, Charleston, New Orleans, Cincinnati, Pittsburgh, Chicago, St. Paul, Denver and San Francisco. The committee secured the services of Prof. J. H. Long, to prepare the material and supervise the work for determining the relative proportions of the ozone and other active oxidizing agents in the atmosphere in the several localities. Through the efforts of Prof. Long a number of eminent professional men of the country were secured to co-operate in the work, in which the United States signal service was also induced to co-operate, and to which the committee acknowledges itself under great obligations.

After reciting details of the work accomplished, and its undoubted value to medical science, the report recommends its continuance, and that it may be made still more efficient, that Prof. Long be engaged at a compensation of $500 to personally supervise the laboratory work during the coming year. The actual expenditures of the committee were $209.72, leaving $290.28 of the sum appropriated for the purpose unexpended, which will enable the committee to continue its work another year as prosecuted the past year, but the committee cannot make such other investigations as it seems to it essential should be made.

The report concluded with the presentation of two resolutions, one for the continuance of the committee, with the unexpended balance of the appropriation of last year to remain at its disposal, and the other recommending an appropriation of $500, for the employment of Prof. Long, as above suggested.

The resolution was adopted.

Dr. Tucker, of California, submitted an invitation to the association to hold its next annual meeting at San Francisco, but as it was understood that the committee on nominations had already selected a place for the next meeting, he hoped the association would hold the session of 1884 at San Francisco.

Dr. W. A. Byrd, of Quincy, Ill., president of the section on surgery and anatomy, read a very able paper upon Excisions of Portions of the Alimentary Canal Covered by Peritoneum. The following is but a brief abstract:

The history of excisions of portions of the alimentary canal by the surgeon, dates back but few years and may be said to be the result of evolution beginning with McDowell's first ovariotomy. In cases of obstruction from stricture, medicine had failed for ages to afford relief, and surgery offered no hope. Occasionally where the constriction was caused by the strangulation of an extended bowel in hernia,. the intestine would slough and be thrown out through an abscess, and nature would form an artificial anus. The great fear of entering the peritoneal cavity deterred surgeons from hoping for anything better or resorting to any more radical means for the relief of the poor sufferers. Dr. Nicholas Senn, of Milwaukee, in a very able and exhaustive report to the Wisconsin State Society on the recent progress of surgery, says: "The results of the cases of excision of the stomach may not seem promising, but when we come to review the earlier history of anatomy

THE PICTURE IS NEARLY AS DARK,

and it must be taken into consideration that many of these operations were undertaken after extensive adhesions had formed and neighboring tissues become involved. May we not hope with earlier and more accurate diagnosis that the diseased mass may be removed so as to restore the patient to years of health and usefulness? The details of the technique of the operation are so well described in a report of Dr. F. J. Lutz to the St. Louis Medical Society and published in April, 1882, that I forbear to quote. The remarks of the late Dr. John T. Hodgen relative to the operations were quoted in length. From these cases and the analogous ones which the author has studied he

DRAWS THE FOLLOWING CONCLUSIONS:

First—Resections of the small intestine may be done to a considerable extent without interfering in any appreciable degree with digestion.

Second—Practiced under suitable conditions the operation is to be considered perfectly legitimate.

Third—The resection may be performed by bringing the divided ends directly into opposition and closing the abdominal wound, by forming an artificial anus. The second and third procedure expose to less subsequent danger.

Fourth—Resections of fibrous and cicatricial structure which are probably more frequent than is generally supposed may cause a radical cure, and the same is the case with epithelioma. On the contrary resections of cancerous obstructions give only temporary relief, and at a greater risk.

Fifth—By proper diet after the operation the risk of fecal extravasation may be reduced to a minimum, and the best diet for this purpose is one containing as little fluid as possible.

Sixth—By introducing liquids per anum, and drink in the same way, water is absorbed as by the mouth and there is no sense of thirst; the flow of intestinal fluids is less considerable and the patient is more comfortable.

My first case was that of a farmer, at Seehorn, Ill., aged fifty-five. For years he had been treated for strangulated inguinal hernia, which could not be reduced.

Found him with clammy sweat, almost pulseless and unconscious. Cut for the hernia and found eight inches of the ileum and a piece of omentum the size of my hand gangrenous. The bowel had separated at the junction of the gangrenous and living portions, permitting extravasation of the fecal matter. The omentum was ligated just above the gangrenous portion and the gangrenous part cut off. The ends of the ligature were left long so as to hang out of the wound. The sound omentum was dropped into the abdomen. The two ends of the bowel were stitched into the abdominal opening so that any fecal matter would be passed to the outside. They resembled to some extent the muzzle of a double-barreled gun presenting at the opening. The opening was left large enough to permit the insertion of the nozzle of a syringe into the abdominal cavity so that it might be washed clear of any bits of the fecal matter or inflammatory products. The cavity of the abdomen was syringed out with tepid water, a teaspoonful of table salt and carbolic acid to the gallon, night and morning. Quinine and nourishing diet was ordered liberally. The patient rapidly recovered and two months later was operated on for the cure of the artificial anus. * * * * *

Heretofore the closure of the artificial anus in many cases has been looked upon as a very difficult thing to accomplish, but I think the plan devised for its cure will make the cases few indeed where it cannot be done.

ADDRESS ON STATE MEDICINE.

The address by A. L. Gihon, chairman of the section on state medicine, was one of the most notable papers of the entire session. He stated that, when elected chairman of the section, he thought he would endeavor to impart more interest to the matter, and, together with the secretary, sent out several hundred circulars asking suggestions from physicians. To these he received only twenty-three responses, and eleven of these were announcements that they could not be present at the annual meeting. He summarizes the responses received, and regrets the lack of interest felt. He then pays his respects to the fraternity as follows:

Benighted pagans employ physicians to keep them well, and cease their stipend when disease stalks in, but the most civilized and self-sufficient of races limits the functions of the medicus to the relief of ills they have deliberately inherited, and without his office paraphernalia, his prescription papers and his pocket cases says to him, "What have we who have neither ache nor ailing to do with you?" Hence, it is not strange that the physician himself has come to look upon this as the chief function of his office, especially as it only brings him his daily bread; that associations of medical men have less interest in the problems of health preservation than in the means by which the dire effects of disease may be overcome, and profits and revenues accrue from working miracles, and that when doctors meet the ethical apple of discord has only to be thrown into their midst to make them squabble like children as to who shall and who shall not be recognized in the guild of bidders for public patronage. When the physician can practice his vocation in a community where his first thought can be given to the unventilated room, the foul drain, the faulty and intemperate diet, the contaminated water; when he can prescribe fresh air for the pallid cheek, and nutritious food for the dilating pupil, and exercise for the flabby muscle, and thick shoes and stockings and proper underwear for the fragile girl braving inclement weather, and sleep and rest for the worn, tired brain, instead of ringing changes on iron and quinine and strychnia; when to be considered to have earned his fee, he need not sit mumbling over the sick-room ritual, "Let me feel your pulse,—Let me see your tongue,—How are your bowels?" and then gravely muse while writing a harmless placebo, which shall go to enrich an apothecary, or put in the stomach some drug with a vague idea of its doing something; when medical schools shall themselves exalt hygiene to its proper eminence, instead of giving it a quasi-recognition as a tail piece to the chair of physiology, then the section on state medicine will not be compelled to beg for favor in the American Medical Association, but its standard will overtop all the rest. But this will not be until health primers are placed in every child's hands as soon as it can read, and the masses of the people are educated to understand that health is not the hand-maid but the mistress. Had Asklep been legendized as Hygeia's bastard son, instead of her father, she would have received, as she deserves, the greater homage.

So long, however, as society in its highest development of rank and culture, ignorantly jostles and wedges itself in contracted salons and drawing-rooms, already defiled by blazing gas-jets and defective furnaces, where hundreds of lavishly dressed human beings befoul the air and poison one another with the noxious gases and their own effete animal products, in deadlier quantity than the ragged rabble which herd in the open streets, and call this pleasure;

So long as godly people drowse and yawn in badly ventilated churches, surcharging their brains and impairing their minds by blood not half aerated; and ungodly ones exhaust their whole reserve nerve force to resist the insanitary influence of the no less badly ventilated theatre and exhibition hall, and call the one pious worship and the other rational amusement:

So long as men toil to amass riches and then build residences, palatial, semi-palatial or sham-palatial, and in the name of luxury and æstheticism flood them with artificial light and heat to consume the oxygen which prince and beggar both must breathe, and admit the invisible filth by the same sumptuously decorated closet and bath room by which they think to exclude the vile necessities of humanity, which prince and beggar alike can not escape, and call this comfort and refinement;

So long as our children are sent to overcrowded, unwholesome schools (sixty-seven cubic feet, reports Sanitary Inspector Moreau Morris, as the average for 715 scholars in a New York primary school of this day) where their eyes are bleared, their hearing dulled, their plastic bodies distorted, and their brains fuddled, and this called education;

So long as men and women daily violate in themselves and in their children, the simplest precepts of hygiene; parents countenancing half dressed daughters, wearing out their strength in unwholesome ball-rooms, seeking the slumber that cannot refresh, only when the dawn appears; sons launched upon the world to encounter physical wreck in a thousand channels, where no beacon warns of danger; old men, senators, judges, divines, perchance learned doctors, uncomplainingly breathing the foul air of public conveyances and apartments, in which every door and window has been carefully closed and every ventilator carefully ignored; streets reeking with filth, which decrepit laborers play the farce of sweeping in broad daylight, and whole blocks of buildings, in fashionable quarters, hermetically sealed from garret to cellar to exclude night air;

What can State medicine hope to accomplish in legislative chambers and halls of congress which are themselves evidences of sanitary ignorance, sanitary neglect and sanitary indifference?

After explaining the branches which have commonly been assigned to this department, he thus states how it should be organized:

1. The collection of information and advice from the principal sanitary organizations and sanitarians of the United States as to the best plan for a national health organization, including the subject of quarantine, both maritime and inland, and the relations which should exist between state and local systems of quarantine and a national quarantine system.

2. The collection of information with regard to the sanitary condition of some of the principal cities and towns of the United States, with special sanitary surveys of the coast of New Jersey bordering on New York Harbor, Memphis, Tenn., etc.

3. The appointment of a commission to investigate yellow fever in the Island of Cuba.

4. The collation of the sanitary laws of the United States and of the several states, including not only the statutes but the decisions of the several courts on all questions involving the public health.

5. Investigations as to the best method of determining the amount and character of organic matter in the air; as to the effects of disinfectants and especially the composition and merits of patent disinfectants; as to the prevalence of adulterations in food and drugs; as to the diseases of food-producing animals; as to the flow of sewers in relation to their sizes and gradients; as to the influence of various soils upon sanitation, especially with regard to drainage and methods of disposal of excreta; as to the outbreak of diphtheria in northern Vermont, etc.

6. The suggestion of legislation to improve the sanitary condition of the mercantile marine.

The doctor forcibly argued in favor of a more stringent quarantine to prevent disease from being brought into the country. He then reviewed at some length the various state board of health organizations, showing their respective nature, scope and workings. Florida, Kansas, Maine, Missouri, Nebraska, Nevada, Ohio, Pennsylvania and Vermont are the states without boards of health. The statistics supplied the national board of health came in for criticism, it being claimed that they did not properly show the true condition of affairs. The statistics of Washington as collected by the local authorities and given to the National board were sharply contrasted with those secured by the navy department, the latter showing Washington to be far from the healthy city which has generally been supposed. The public buildings, though constructed without limit as to expense, are illy ventilated, and, as a rule, breeders of illness.

The section on state medicine was advised that no work it could perform was so important as the securing of accurate health statistics. He concluded as follows:

The people and their representatives must yet be educated to the real dangers to the public health, and this can best be done graphically by the simple diagrams of Pridgin Teale; by the meetings and popular addresses of the American Public Health Association; by the development of a great National museum and library of hygiene, which the surgeon-general of the navy has taken the initiative in establishing, in connection with the bureau of medicine and surgery, and which it is proposed to make a central repository of whatever relates to sanitary science, and these accessible to every one throughout the land by the loan of books under proper guarantees of safety; and, lastly, by the American Medical Association, through its state medicine section, making physicians alive to their responsibilities as sanitary guides, encouraging the formation and development of state boards of health, and through them influencing the legislation of the country to the practical sanitary needs of this advanced age.

When the long continued applause subsided, Dr. Campbell, of Georgia, arose, and in eloquent terms defended the association from the implied strictures upon it contained in Dr. Gihon's paper. Dr. Campbell characterized the American Medical Association as the best organized and most efficient body in the world, and as being immeasurably superior to that of England. He concluded by moving the reference of the paper to the committee on publication.

The report of the judicial council upon Dr. Dennison's resolution to strike out the word "allopathy" as relating to practitioners of regular medicine, after some discussion, was laid over for action.

JUDICIAL COUNCILS' REPORT.

In the case of the protest of the delegates from the Nebraska State Medical Society against the admission of Dr. Joseph Neville as a delegate from the Omaha Medical Society, the council decide that the protest of the delegates of the State Society of Nebraska is sustained inasmuch as Dr. Joesph Neville has been dropped from the State Medical Society for the non-payment of dues and is therefore by the provisions of the fifth section of article second of the constitution of the association, incapacitated for registration here until he regains his proper standing in said State society and therefore dismiss the appeal. In the case of the charges with specifications made against Dr. D. W. Day by delegates from the Eau Claire Medical Society, and by permanent members, your council, after full examination of the witnesses and papers on both sides, decides that the first, second, fourth and sixth charges are fully sustained, and therefore that said Dwight W. Day is no longer entitled to recognition as a member of this association. The council further decides from the evidence before it that the Eau Claire Medical Society needs a thorough reorganization before it can be justly entitled to representation by delegates in this association.

In the case of S. P. Collins, from Hot Springs, Ark., it is in evidence before us that he has been dropped from membership of the society to which he belonged, for non-payment of dues, and therefore is not entitled to registration as a permanent member in this association.

In the case of the appeal of John C. Cotton from the decision of the censors of the Crawford County (Ind.) Society, and the State Medical Society of Pennsylvania, we find no just cause for sustaining the appeal.

Adjourned.

Pursuant to adjournment the association was called to order at 10 a. m. June 9th, by President Hooper. After prayer by Rev. E. D. Neil, Dr. A. J. Stone made his final report.

LIBRARIAN'S REPORT.

The report of this officer, Dr. Wm. Lee, Washington, included a full list of the books added to the library during the year, which was prefaced by the following report and recommendations:

Mr. President, I have the honor to present the accompanying catalogue of additions made to this library by donations, exchange and purchase during the past year. A reference to its pages will show that since my last report there have been added 167 distinct titles, exclusive of yearly volumes of transactions of societies, reports of hospitals, boards of health, and volumes of medical journals; these have been previously catalogued as such. This addition makes the library consist at present of 1,702 distinct titles, which comprehend from a general estimate about 4,448 volumes, inclusive of pamphlets. The Boston Medical Library association has generously placed a large number of its duplicate periodicals at the disposal of this library—which has gone far towards completing certain imperfect sets of the same, and thus materially assisted in its growth, due credit for which will be found to be given in the catalogue. Otherwise, with the exception of a few monographies donated by the authors, the library has been left entirely to its own resources to obtain periodicals by exchange and purchase. I have only to recommend, in conclusion, that the home and foreign exchanges be continued ; that $100 be placed at the disposal of the librarian to be expended as heretofore for the especial purpose of binding and purchase of periodicals, proceedings and transactions which are to assist in the completion of sets ; and that $50 be again subscribed to the Index Medicus, under the same conditions as last year. This important and valuable periodical seems now to be established upon a more permanent and firmer basis, and this offer of pecuniary aid on the part of the association is simply an appreciation of its merits and a desire to insure its success.

The report was accepted and the recommendations adopted.

TREASURER'S REPORT.

The report of the treasurer, Dr. Richard J. Dunglison, Pennsylvania, read by the secretary, was as follows:

The treasurer has the honor to report a balance in the treasury at this date of $1,141.38. In the statistics furnished by him last year to the committee on the president's address, which was really a report on journalizing the transactions of the association, the fluctuations of membership were distinctly exhibited. These figures, published in the last volume of transactions, may be considered as still further verified by the experience of the past year. The question to which the treasurer is compelled to reply more frequently than any other in the course of a voluminous correspondence with members of the association is, "Why do you write to me as a permanent member?" or, "When was I elected a permanent member?" He would, therefore, state for the information of all those present at the meeting at St. Paul, that every one who attends at that place as a delegate from a medical society will thenceforth become from the very first of such attendance a permanent member of the American Medical Association, who should annually pay $5 to the treasurer, or his dues to that body according to the roster of the association especially stated and printed in every annual volume of transactions. As copies of the annual transactions for the previous years may still be obtained, it is suggested that those who have neglected to pay their dues at any time previous to the present year, will communicate with the treasurer, who will cheerfully respond to all inquiries and inform them as to the volumes which are still in print and procurable for him.

On motion the report was adopted.

COMMITTEE ON PUBLICATION.

This committee submitted the following report:

The committee on publication, in presenting their annual report, would briefly state that they have made as judicious expenditure as possible during the past year in the issue of the volume of transactions, by a continued observance of the rates agreed upon by the association at a late meeting. They have endeavored to procure the publication at an early date after the annual meeting, but have to report the usual difficulties in accomplishing this result through the detention of manuscripts and proofs by the writers of papers authorized to appear in the annual volume. They did not feel justified in printing at this time an index prepared by the permanent secretary to all the published volumes of transactions, which was intrusted to them by the association at its last meeting.

On account of the cost of such index, the estimate for which aggregated about $800 or $900, the committee of publication believe at any rate that such an index would be more appropriately published hereafter at a time not only when the amount in the treasury would be more favorable for the purpose but when it may also be finally decided by the association whether another volume of transactions shall be published as usual or the form of publication be changed at once to a journal. In the former event it should include another volume to complete the series of transactions, and in the latter its appearance would be quite as well timed as if published a few months earlier. All of which is respectfully submitted.

AN INDEX WILL BE PUBLISHED.

At the conclusion of the reading of the report a general discussion ensued relative to the publication of an index to all the volumes of the transactions. It was finally decided that an index including the transactions of the present session be printed, and to that end a resolution was unanimously adopted.

The secretaries of the several sections then submitted their reports which were accepted and referred to the publication committee.

CREMATION.

Dr. Keller, Arkansas, offered the following resolution:

Resolved, That in many of our large cities in the near future, if not now, cremation will become a sanitary necessity.

A motion to table was lost. It was then referred to the committee on state hygiene.

A motion to reconsider this last vote and have the matter settled at once was lost: 28 against reconsideration to 59 for.

The resolution offered on Wednesday by Dr. Denison, of Colorado, at his request was then taken up for consideration. It had been referred to the judiciary committee and afterward back to the house for action, but after being discussed it was laid on the table.

REGARDING EXPERT TESTIMONY.

The following resolution in regard to expert testimony was introduced from the section on state medicine, by A. L. Gihon, U. S. A.:

Resolved, That it is the sense of the American Medical Association that it will be conducing to justice and the dignity of the profession that medical expert testimony shall be given without having the appearance of being in behalf of either side, but to be stated simply as facts.

The resolution was accepted and adopted amid loud applause.

MEDICAL EXAMINATIONS.

Dr. J. G. Thomas, of Georgia, offered the following resolution:

Resolved, That the association approve the organization of faculties in medicine having no other foundation than the examination for degree, as a measure which will increase the value of the present methods of education in medical colleges in this country.

Dr. David spoke on the subject that the requirements of the resolution would make more requirements from the students and make their examination impartial. The resolution cast no slur on any faculty, neither did it limit in any way their present powers; he was a teacher and had been for thirty years.

Dr. Garcelon, of Maine, opposed the resolution and moved that it be laid on the table.

The result was obtained by a rising vote—ayes 75 to lay on the table, and 132 against.

Dr. Ranshoff, of Cincinnati, was opposed to this plan, claiming it would add additional expense, and it was a slur on all the teachers in the country. He was in favor of a National law, but until they had it such a resolution was of no use.

Dr. Gihon was

OPPOSED TO TAKING DOWN THE BARS.

He was also opposed to fighting the homœopath, as the fight that had been made on them was giving them a trade mark.

He read a number of papers from graduates of colleges who had applied for credentials from an examination committee of which he was a member. The papers, because of their numerous errors and the bungling treatment advised in different cases, were greeted with shouts of laughter. At the conclusion of the reading Dr. Gihon asked if this was not an indication that something should be done at once.

Dr. Carpenter, Kansas, thought the fact of the

GRADUATES BEING SO POORLY INFORMED

was owing to the state universities being governed by politics, and that the homœopaths being better politicians than the regular physicians caused that class to set the standard in the colleges.

Dr. Davis said he was fully in favor, and had been for thirty years, of the principles of independent examination, but now having brought the matter to the notice of the association, thought that action on the same should be further postponed.

This was done by a unanimous vote.

Dr. Dennison, Colorado, offered the following resolution, which was adopted :

Resolved, That no action af this association, either in its code or its annual meetings, shall be construed to commit members of the American Medical Association to the adherence to any dogma, and members should have a care not to allow their names to be erroneously registered as allopaths, etc., in state and city registration of physicians.

A STIPEND FOR THE SECRETARY.

A motion was made to vote the usual amount to the secretary for his work, providing that amount was left in the treasury after defraying the expenses of the publication of the journal.

Dr. Toner thought that $500 was sufficient. Dr. Davis wanted some definite sum mentioned.

The motion to make the sum $200 was lost, and $1,000 ordered paid the secretary, subject to the condition of the treasury.

AMENDMENTS TO THE CONSTITUTION.

Dr. Toner gave notice of a change in the constitution so as to make the secretary serve without compensation.

Dr. H. Goodwillie's amendment to article 11, section, 8, Permanent Members, strikes out the words "but without the right of voting."

Dr. Pratt, of Michigan, offered an amendment to article 13 of the by-laws, altering it so as to read that none but members present shall be eligible to the office of president, first vice-president, secretary, treasurer, chairman of section or member of the judicial committee.

Dr. Keller announced an amendment allowing the committee on nominations until a date as late as September after the annual meetings to select the place of meeting. Laid over by rule for one year.

NEED OF A PERFECT MEDICAL COLLEGE.

A series of resolutions by Dr. Laurence, of New York, was introduced and read as follows:

WHEREAS, It is known that no school or college exists within the territory comprising the jurisdiction of the American Medical Association whose course of instruction fully meets the requirements of a practical medical education in all of its branches or specialties, and

WHEREAS, No school nor institution for the above purpose exists that is not more or less dependent upon tuition fees for its support, and

WHEREAS, it is the sense of the American Medical Association that the highest type of education and ability cannot be attained until the subject of tuition shall be entirely divorced from the subject of instruction and graduation, and that the cause of humanity and the cause of research alike demand such divorce, and

WHEREAS, It is desirable to establish an institution national in character whose various chairs and whose curriculum shall represent and include every branch of medical science essential to the highest and most technical qualification, and which, while exacting from each graduate a full course in the different branches shall at the same time be so endowed and equipped as to make attendance, study and ability the sole condition of graduation, therefore be it

Resolved, That the president of the American Medical Association appointed a committee consisting of one representative from each State in the Union whose duty it shall be to investigate the subject of the feasibility of creating and endowing such an institution as shall in their judgement meet the demands of this age of investigation and progress, and that said committee shall include in their report at the next annual meeting a more exact character of the school we need and the ways and means that will best conduce to the accomplishment of the undertaking.

The resolutions were laid on the table without any action being taken on them.

Dr. Keller, of Arkansas, moved that the secretaries of the State Societies send annually to the secretary of the American Medical Association a list of the members dropped from the State Societies. Adopted.

EVERY OTHER MEETING TO BE HELD IN WASHINGTON.

Dr. N. S. Davis introduced the following:

Resolved, That after the next annual meeting the permanent interests and influence of this association would be best promoted by again holding every second meeting in Washington, as its home on common national ground and not as invited guests, while each alternate meeting should be held in such section of the Union as would be most useful in promoting the society organizations in all parts of our country.

Adopted.

On motion of Dr. Marcy, a vote of thanks was tendered the treasurer, Dr. Richard J. Dunglison, by the association.

AMENDED NOMINATIONS.

The matter of nominations having been referred back to the committee on nominations, they again submitted a report. The place for the next meeting is Cleveland, and the following is the list of officers for 1883:

President—John L. Atlee, Philadelphia.

First Vice-President—Eugene Grissom, North Carolina.

Second Vice-President—A. J. Stone, Minnesota.

Third Vice-President—J. A. Octerlony, Kentucky.

Fourth Vice-President—H. S. Orme, California.

Treasurer—R. J. Dunglison, Pennsylvania.

Librarian—C H. A. Kleinschmidt, Washington.

Chairman of Committee on Arrangements—X. C. Scott, Cleveland.

Assistant Secretary—I. N. Hines, Cleveland.

Members of Judicial Council—N. S. Davis, Illinois; J. M. Brown, United States Navy; X. C. Scott, Ohio; M. Sexton, Indiana; N. C. Husted. New York; Wm. Lee, Maryland; J. F. Rives, West Virginia.

OFFICERS OF THE VARIOUS SECTIONS.

Practice of Medicine—J. H. Hollister, Illinois, chairman; J. G. Lee, Pennsylvania, secretary.

Surgery and Anatomy—W. F. Peck, Iowa, chairman; Paul F. Eve, Tennessee, secretary.

Obstetrics—J. K. Bartlett, Wisconsin, chairman; G. A. Moses, Missouri, secretary.

Medical Jurisprudence and State Medicine—Foster Pratt, Michigan, chairman; Thos. L. Neal, Ohio, secretary.

Ophthalmology, Otology and Laryngology—A. W. Calhoun, Georgia, chairman; Carl Seiler, Pennsylvania, secretary.

Diseases of Children—R. Blount, Indiana, chairman; J. H. Sears, Texas, secretary.

Dentistry—D. H. Goodwillie, New York, chairman; T. W. Brophy, Illinois, secretary.

COMMITTEE ON NECROLOGY.

Dr. J. M. Toner, Washington, chairman; Alabama, vacant; California, Dr. J. H. Woolsey; Colorado, Dr. Charles Dennison; Connecticut, Dr. W. C. Burke; Dakota, Dr. O. S. Pine; Florida, vacant; Delaware, vacant; Georgia, Dr. Robert Battey; Illinois, Dr. J. H. Holister; Indiana, Dr. G. L. Sutton; Iowa, S. B. Chase; Kansas, Dr. C. V. Maleram; Kentucky, Dr. J. W. Brooks; Louisiana, Dr. J. W. Dupree; Maine, Dr. A. Garcelon; Maryland, Dr. Wm. Lee; Massachusetts, Dr. H. O. Marcey; Michigan, Dr. W. F. Breakey; Minnesota, Dr. D. W. Hand; Mississippi, Dr. H. A. Grant; Missouri, Dr. C. L. Hall; Nebraska, Dr. R. C. Moore; New Hampshire, vacant; New York, Dr. J. A. Chapman; New Jersey, Dr. E. A. Watson; North Carolina, Dr. C. W. Woolen; Ohio, Dr. J. F. Russell; Oregon, vacant; Pennsylvania, Dr. Frank Woodbury; Rhode Island, Dr. A. Ballou; South Carolina, vacant; Tennessee, Dr. J. B. Lindsley; Texas, Dr. H. C. Ghent; Vermont, Dr. O. F. Tassett; Virginia, Dr. F. D. Cunningham; West Virginia, I. V. K. Curtis; Wisconsin, J. T. Reeve; United States Army, G. Perrin; United States Navy, F. M. Grinnell; United States Marine Hospital Service, F. W. Miller.

COMMITTEE ON PUBLICATION.

Drs. W. B. Atkinson, Albert Frincke, J. S. Cohen, F. Woodbury, J. H. Packard, J. R. Dunglison, J. V. Shoemaker.

COMMITTEE ON STATE MEDICINE.

Alabama, vacant; Arkansas, D. C. Ewing; California, J. O. Tucker; Colorado, C. Dennison; Connecticut, W. C. Willey; Delaware, vacant; District of Columbia, D. W. C. Patterson; Dakota, S. B. McGlumpt; Florida, vacant; Georgia, H. F. Campbell; Illinois, H. A. Johnson; Indiana, T. M. Stevens; Iowa, D. W. Crouse; Kansas, J. Bell; Kentucky, T. B. Greenly; Louisiana, J. W. Dupree; Maine F. B. Ferguson; Maryland, Wm. Lee; Massachusetts, M. G. Parker; Michigan, R. C. Kedzie; Minnesota, C. N. Hewitt; Mississippi, H. A. Grant; Missouri, E. W. Schauffler; Nebraska, E. M. Whillen; New Hamshire, J. A. Sanborn; New Jersey, D. C. English; New York, E. M. Moore; North Carolina, C. W. Woollen; Ohio, J. Ransohoff; Oregon, vacant; Pennsylvania, A. H. Smith; Rhode Island, J. N. Eldridge; South Carolina, vacant; Tennessee, V. S. Lindsley; Texas, W. H. Parke; Virginia, F. D. Cunningham; Vermont, S. W. Thayer; West Virginia, John Frizzel; Wisconsin, J. T. Revee; United States Army, W. C. Spencer; United States Navy, A. L. Gihon; United States Hospital Service, F. W. Miller.

THE JOURNAL.

Dr. Sayre, as one of the committee, said that the duty of the committee in selecting a board of trustees was a very important one. That in making the selection the committee had been hampered by the resolution passed on Thursday, to the effect that the non-attending members were not eligible, as some of the oldest and ablest members of the association were unable to be present at this session.

The trustees appointed by the committee were as follows:

For Three Years—Drs. Davis, Chicago; Moore, New York, and Toner, Washington.

For Two Years—Drs. Campbell, Georgia; Packard, Pennsylvania, and Connor, Michigan.

For One Year—Drs. Hooper, Arkansas; Garcelon, Maine, and McMurtry, Kentucky.

Dr. Brodie then offered the following resolutions, and called on Dr. Davis to second them:

Resolved, That the heartfelt thanks of this association are hereby expressed to the citizens and the members of the medical profession of St. Paul for the munificent hospitality with which we have been received and entertained during the present annual meeting; to the committee on arrangements, and especially to Dr. A. J. Stone; to the members of the daily press for their uniform courtesy and the general faithfulness of their reports of our proceedings; to the superintendents of all the railroads that have granted to delegates, permanent members and their friends reduction in rates; to the citizens, especially the Hon. D. M. Sabin and the profession of Stillwater, for their charming entertainment; and to all the citizens of the further northwest for their invitation and promised welcome to all who may visit their beautiful and fertile section of country.

Resolved, That, by the adoption of this resolution, we express our desire to foster the social element of our profession, and we shall carry away with us life-long remembrances of this rich and prosperous section of our united country, and also the courtesy, the kindness and the hospitality of the citizens of St. Paul.

MINNESOTA STANDS PRE-EMINENT.

In seconding the vote of thanks, Dr. N. S. Davis remarked:

The main object of this association is the pursuit of scientific knowledge. There are other benefits which accrue to us besides this; one of them is the meeting in this association of members of the profession from all parts of the country. Then we meet the people of the different sections in which our meetings are held. This destroys all clannish influences and enhances our enjoyment. We have been received everywhere with open hands and hearts, but at no time in the history of the association, nowhere in the country, have we been received with such unbounded hospitality as in Minnesota.

NOT ONLY ST. PAUL BUT ALL THE STATE,

in fact the whole Northwest, the people, press and railroads have treated us royally, beyond anything that we ever experienced before.

Our thanks are due especially to a neighboring city and its leading citizen for the pleasure they have afforded us. I say this in no complimentary vein, but with all the candor of my nature. Words are too feeble for this association to use in the expression of its appreciation of the hospitality extended to it. When the vote is taken on these resolutions let it be a hearty one and not mere lip service.

The resolutions were adopted by a unanimous vote, followed by long and loud applause.

DR. GOODWILLIE'S ADDRESS.

The session then listened to an interesting address from Dr. D. H. Goodwillie, of New York, chairman of the section on dentistry, on that important subject.

He spoke respecting the divisions of the section, which naturally separates itself into a number of branches. These divisions are dental art and oral surgery. The first is nearly all mechanical in its nature. The second includes the treatment of all diseases of the mouth. To the proper practice of the latter it is necessary that there be added the experience of the former, with a practical knowledge of medicine and surgery. Such knowledge should be supplied from the chairs established in all our medical colleges, the practical department to be supplied by infirmaries and hospitals to give this knowledge. He illustrated the many diseases of the mouth and associate parts by cases in his own experience, exhibiting diagrams, photographs, instruments and over twenty wax models of notable cases. Among them were internasal and interoral extirpation of the bones of the nose and jaws with a reproduction of bone without any deformity.

DELEGATES TO FOREIGN SOCIETIES.

The president then announced the following as delegates to the foreign societies: Drs. T. A. Emmett, D. Lewis, W. M. Carpenter and E. M. Brush, New York; and J. M. Da Costa, Pennsylvania.

THE PRESIDENT ELECT.

On motion Dr. Davis, of Chicago, was appointed to escort Dr. John L. Atlee, the president elect, to the platform. Dr. Atlee was greeted with loud applause, and on being introduced by President Hooper, made the following address:

Gentlemen of the American Medical Association: It is with no ordinary emotions that, by your partiality, I occupy a chair that I have seen filled by a Chapman, a Warner, a Stevens, a Knight and a host of worthies, living and dead, who were and are the ornaments of our profession. I beg you to accept, gentlemen, my heartfelt thanks for the honor you have conferred upon me. I accept it also with gratitude as a tribute to the memory of a dear brother, who, were he living, would more deservedly occupy this position. My chief object in coming here on this occasion was to assist in carrying out the instructions unanimously given by the Lancaster County Medical Society to uphold the honor and dignity of our noble profession by putting the seal of condemnation upon the recent action of a state society; the sanction of which would have given character to a system of practice derogatory to common sense and professional integrity. All honor, gentlemen, to the report of our judiciary committee. In the performance of my duties I shall endeavor to be firm and impartial and I trust that I may be supported by your kindness and courtesy in trying to uphold the right.

This short speech was received with cheers by the audience which, though small, was very enthusiastic.

The thanks of the society were tendered to the retiring president, Dr. P. O. Hooper, of Arkansas, by a standing vote, That gentleman responded feelingly, and at 12:40 o'clock the association adjourned.

TRUSTEES OF THE JOURNAL—AN ORGANIZATION EFFECTED.

At the close of the session the members of the board of trustees of the Journal of the American Medical association met on the stage. There were present N. S. Davis, Chicago; J. M. Toner, Washington; P. O. Hooper, Arkansas; H. F. Campbell, Georgia, and Leartus Connor, Michigan. They organized with N. S. Davis, president, and J. H. Packard, of Pennsylvania, secretary. On motion the president was authorized to secure, by the aid of the secretary, the publication of the report of the committee on a journal of the American Medical association, and the resolution of Dr. Davis adopted by the association, and distribute the same as soon as possible to all the members of the board of trustees, and such other persons as they may deem proper. The committee then adjourned, Leartus Connor acting as secretary pro tem.

DETROIT LANCET.

VOL. VI. August, 1882. NO. 2.

Original Communications.

Is the Study of Physiology as Taught in Schools Demoralizing to Woman?

BY DR. KATE LINDSAY.

[Paper read before the Calhoun County Medical Society, June 13, 1882.]

THE influence of the study of physiology on woman as now taught in schools should be decided not by the assertion, or even fact, that criminal abortion has increased contemporary with it, but by ascertaining if there necessarily or actually exists more than a mere coincidence between the two.

Even admitting for the sake of argument that a few have made a bad use of the physiological knowledge acquired at school, does that imply that the study should be prohibited?

Advertising has increased immensely during the last twenty-five years, and there is no doubt but that a great deal of evil has been done through the medium of the press by vicious advertising. The abortionist has used it as a means of reaching his patrons, and the number of criminal abortions has been increased thereby. Would anyone advocate the prohibition of all advertising because of the abuses of the system? But let us look at the facts in the case and try to ascertain if our own age and nation are the only ones who do or ever have practiced criminal abortion.

Going back to the days of Hippocrates we find that the evil must have existed, else why should the father of medicine have deemed it necessary to forbid its commission by a solemn oath imposed on all his disciples? Lecky, in "History of European Morals," says but few persons of antiquity looked upon abortion as a crime. Aristotle countenanced the practice, even advocated the enforcement of it by law, when population exceeded certain assigned limits. No law in Greece, nor in the Roman Republic, nor during a greater part of the empire, condemned it. A long chain of writers, both Christian and Pagan, represent the custom as almost universal. They describe it as resulting not simply from licentiousness and poverty, but even from so slight a cause as vanity, which made mothers shrink from the disfigurement of child-birth. The slave women of the South, the Indian women, and women of other barbarous tribes were familiar with the oxytocic, properties of certain drugs, and practiced manipulations to expel the fœtus prematurely. I think that even the late Dr. Pitcher, of Detroit, would have been willing to admit that the Greek and Roman ladies, slave, Indian and other barbarous women were free from contamination of education in physiology.

What are the facts of our own day and generation as regards the influence of the physiological and hygienic knowledge obtained at our institutions of learning? In relation to the sexual organs, outside the medical college it is simply null.

I well remember committing to memory the facts and theories of Cutter's High School Physiology. So far as reproduction or the sexual organs were concerned, save for a few causual remarks about hereditary tendencies, I should have remained ignorant as to whether human beings came into existence through parentage, or spring into life by spontaneous generation. Twenty-five years may have enlarged the scope of physiology as taught in the schools of to-day. I have seen no modern text-book on the subject, however, that could in any possible manner instruct a woman how to use the uterine probe, or even inform her that such an instrument exists.

There are books secretly circulated by professional abortionists that pretend to give this information. But they are found quite as often in the hands of the totally ignorant in regard to physiology, as in the hands of those instructed in the science at school. Let us look at this study in the light that we do the other studies. A boy or girl goes to school and spends years of study on Greek, Latin, and the higher mathematics. Ten chances to one that they will ever make any practical use of these studies.

The professor wisely tells us that the mental drill, however, pays for the time spent in this manner, even to the business man and housekeeper. Will not the time spent on the study of physiology pay as a drill, equally as well?

The aim of all true education is to increase the capacity and improve the morals of mankind. The more true knowledge rightly applied, the more useful and the higher the moral standard, the more law-abiding. Will not a knowledge of natural laws and the penalties attached to their violation, help to make mankind more respectful toward all right civil laws, and a knowledge of how to avoid disease increase individual usefulness by leading mankind to shun the causes of disease?

.Will a woman be less moral because she knows enough about the functions of respiration to keep her house well ventilated, than if she lived in a villainous atmosphere filled with carbonic acid and organic impurities. Last, but not least, comes the practical use of education in the every day life. The civil engineer finds mathematics, geometry, trigonometry, etc., useful to him. The business man, bookkeeping and a commercial education; the professional gardener, botany. Speaking of that science reminds me of how much time is spent by young ladies in obtaining a knowledge of the functions and anatomy of plants in our higher institutions of learning.

BOSTON MEDICAL LIBRARY ASSOCIATION

In after life we often find that the only practical use made of the knowledge by the young ladies is in the case of a few petted geraniums, fuchsias and tuberoses in a bay window. I do not intend to discourage young ladies about the study of plants, but it really seems reasonable to think that some knowledge of the functions and structure of her own body would be as useful to the school girl in after life. It is important for her personally to know enough about her body to be able to keep it in good, sound physical health. The majority of women in our land are housekeepers, wives and mothers, responsible, not only for their own health, but, in a great measure, that of husband and children. No medical man will deny that a great deal of sickness is due to preventable causes. A great many children are sacrificed every year through the ignorance of mothers who love them and have their welfare at heart.

Will any one affirm that a mother becomes demoralized because she understands enough about the function of her baby's stomach to prevent her filling it with all manner of solid, and farinaceous food during the first months of its life after birth? This injudicious feeding causing gastric and intestinal catarrhs, from which if it do not die in an acute attack it may escape with digestion impaired for life. Will she be any the less likely to fail in her maternal duties because she knew that unimpeded circulation, and respiration are necessary to keep the body in health? Is it a sign of maternal degeneracy to know enough to loosen up the baby's bands, and to select low spring heels instead of French heels for her little girls? In winter covering legs and arms in thick woolen garments, instead of exposing them to the cold blast, bare or covered with but one thickness of cotton to satisfy feminine vanity. In the 1882 edition of "Diseases of Children by Meigs and Pepper," the author states, "that in Philadelphia since the introduction of high necked, long sleeved dresses, with warmer covering for legs and feet, cases of acute and chronic coryza have decreased in an appreciable degree, among infants and small children." When a woman knows enough about the evil results, not only to the general health, but to the sexual organs, of a tight unyielding corset and heavy skirts suspended from the middle portion of the body, and put a loose waist and skirt supporters in their place, will the most conservative presume to say that this knowledge is debasing to her?

The dissemination of correct physiological and hygienic principles among women has given her common sense shoes, warm knit undergarments both for herself and children, and established houses in the principal cities of the union, which deal in reform goods of all kinds, for women and children." Even the inland towns and villages, bring out the yearly supply of thick warm beaver, felt and flannel lined shoes, and warm leggings to protect the feet and legs against cold and dampness. So much for the present good results of the knowledge of physiology as taught in our schools. I admit that like a great many other studies it is not made practical enough. Its importance is not impressed on the conscience and intellect as it should be. And so far as the sexual organs and function are concerned it is a total failure. Many young ladies graduate at our high institutions of learning with little more true knowledge of their own peculiar organizations as women, than their heathen barbarian sisters. The wise man says that "it is for lack of knowledge the people perish." In no way is this more manifest than in the number of women who suffer from special diseases, the result of ignorance. And they are ignorantly bringing up their daughters to follow in their footsteps, which certainly are not foot-prints on the sands of time, to encourage shipwrecked woman bereft of health, and often times of morals as well because no mother's voice raised the note of warning against the dangers from sexual disease and sexual vices. In the majority of cases these are the result directly of violated physical law.

In the April number of the *American Journal of Obstetrics*, is an article on "Masturbation in the Female," by Horatio Bigelow. In speaking of the prevention and cure of the habit, he says: "The general cultivation of a higher relationship between the sexes, the dissemination of sound physiological knowledge, not calculated to pander to corrupt taste, and the purification of our social habits and customs, are, after all, the most potent medicine in the treatment of this habit."

The ancients believed that life began at birth, or at least not until the time of quickening. Before that they considered that the fœtus was a part of the mother's body, and that she had the same right to destroy it that she had to remove and destroy a tumor. The result of this belief was that with them abortion was not considered a crime.

With the advent of Christianity there came a great change of sentiment in relation to the value of human life. In the language of Scripture, "Man became more precious than fine gold; even more than the golden wedge of Ophir." The doctrine of purgatory, which crept into the church soon after the days of the apostles, taught that after the period of quickening a child became accountable for original sin, subject to suffering hereafter if dying in utero without baptism and absolution. This belief, together with the change of sentiment in relation to the value of human life, caused a prevailing evil which had been looked upon at the closing of the Roman power much as drunkenness was regarded at the close of the last century, as something to be deplored, perhaps, yet not so serious as to deserve punishment by law—to be regarded as a heinous crime against human life, and in all civilized countries at the present time the perpetrators are held amenable to civil law. The physiological teaching of our own day stands side by side with Christianity in relation to the sacredness of human life. It takes us to the moment of conception for the origin of individual existence, instead of waiting until quickening, like the ancient fathers. It tells us that the function of every organ is governed by fixed laws, and that man cannot ruthlessly enter their domain for the purpose of thwarting nature without seriously, often fatally, disturbing all the vital functions.

A knowledge of the moral law, the sinfulness and danger of transgression, and the good results that flow from obedience, impressed on the plastic infant mind, often in after life proves a safeguard against vice to the young man or woman going out into the world, away from home influence and restraint. Would not the teaching of the sacredness of physiological law to either boy or girl produce the same results in regard to the proper care of the body? Let fathers impress upon their sons that the depreciation of mind and body that results from secret vice and social evil are lasting, and educate mothers so that they shall be qualified to do the same by their daughters. Let them impress on their minds the fact that the consequences of all sin, sexual as well as other, are eternal, at least so far as the body is concerned; that in taking the life of their unborn children they always risk their own life and health. Let them impress on their minds that antenatal destruction of human life is murder. The causes of criminal abortion at the present time are ignorance, licentiousness and dread of exposure felt by unfortunate girls, the love of dress, admiration and amusements, the desire to avoid the pain, care and responsibility of maternity, poverty, ill health, the cruel neglect, drunkenness, brutality, and sensuality of men. These are all potent exciting causes, which, coupled with ignorance, tempt woman to sacrifice her unborn children.

The professional abortionist still teaches his ignorant patrons that life begins at quickening; that destruction of the fœtus before that time is not murder, and is without danger to the mother, therefore no sin, causing a moral apathy in relation to antenatal life. The maternal instinct is naturally one of the strongest in women. When normal in mind and body, and happily married, maternity comes to her as a joy and blessing.

The surest way to reach this ideal standard of health is to instruct girls not only in those branches of physiology and hygiene taught in school, but to give them right instruction in regard to their special organization as women.

A wide field of usefulness opens here for conscientious educated female physicians.

Side by side with the ten commandments let them teach the sacredness of physical law. Let them impress on the young minds that the author of both laws says that "whoever defileth the temple of God will God destroy," and that that temple is the human body.

Give us, for the wives and mothers of the next generation, girls in sound health, wise in relation to the physiology of their own body, comprehending the solemn necessity of bringing the passions and emotions under intellectual and moral control and restraint, and we will not be pained so often with tales of woman's weakness and man's perfidy.

The graveyards of our country would not be dotted all over with victims of self-murder. Tales of the crime of abortion, social evil, secret vice and marital unfaithfulness would not so often fill our public papers, proving a potent means of debasing the youthful mind. The good results to women that would flow from the dissemination of sound physiological and hygienic knowledge, will never be completely realized until mothers are educated in those branches so as to be able to give their young daughters the necessary instruction how to care for their own bodily welfare properly. How often, in talking with young ladies suffering from sexual diseases, frequently the result of bad dressing, late hours, and too close application to studies and sedentary habits, etc., have they said, "Oh, if my mother had only told me long ago what you are telling me now, I need not have suffered all these years from ignorance!"

Would Dr. Pitcher, if living, or any other educated, liberal-minded physician of the nineteenth century, be willing to take the responsibility of withholding from women the knowledge of the laws of her own body, when disregard of those laws, oftenest through ignorance, is fraught with danger and disastrous results to herself and offspring? The State of Michigan is seeking through her boards of health to stir up the people by educating them how to protect themselves against all the preventable causes of disease. The physicians of the State have been foremost in this beneficent project. Will they not also be the foremost to advocate a more thorough education of women and girls in physiology and hygiene, that intelligent American women may become like the famous mythological Greek Goddess of health, so wise in relation to what is best for their own, their husband's and children's moral, mental and physical welfare, as to be in every sense worthy the title of household Hygeas, carefully guarding household health.

The Epidermic Administration of Medicines.

BY DR. GEO. H. GREEN.

[Paper read before the Calhoun County Medical Society, June 13, 1882.]

WHEN it is necessary to bring the system under the influence of medicine it is sometimes of much moment how we do it. The administration of medicines by the stomach must ever continue to be the main mode of giving them, because it is at once the most natural and convenient way. Nature has made the stomach to be the great receptacle of food and drink, and made absorption to be one of its main functions, while with the other parts of the system absorption is a secondary matter. The intestines have more to do with digestion proper than the stomach, and with them digestion comes first, then absorption, while from the stomach absorption takes place frequently without much and sometimes without any digestion. And when medicines are put into the stomach they are in the main promptly absorbed without being changed by any digestive process. Thus their exhibition in this way is at once the most natural, the most convenient and under most circumstances, the most reliable and effective.

The rectum is mainly an excreting organ but has large power of absorption, its absorbing power being sufficient so that life can be sustained for months by nutrient enemata, when it is impossible to swallow anything. This absorbing power can be utilized many times by the use of medicated enemata or suppositories, when the medicines cannot conveniently be administered by the mouth or when a local effect is desired. The exhibition of medicine by hypodermic injection is of more recent date and is often of indisputable value, and in some cases could hardly be dispensed with. The physician who has no hypodermic syringe is surely far behind the times and is cheating some of his patients out of a valuable means of relief. The blood vessels and lymphatics in the subcutaneous cellular tissue rapidly absorb the injected dose and the proper effect of the medicine is obtained far quicker than in any other way of giving it. Wherever blood vessels or lymphatics or lacteals exist, there absorption of liquids or of medicines in solution can occur.

Lymphatics exist in great abundance in the subcutaneous cellular tissue, but most abundantly in the palms of the hands and flexures of the joints, therefore these places are more especially adapted to the external application of medicines, while the sufficiency of absorbing power in any of the subcutaneous cellular tissue does not render it necessary to select any particular spot for hypodermic injection. There are times when the stomach is in such a cold, slimy, inactive condition that absorption occurs to only a very limited degree, and in this condition medicines may lay in it for several days and then be vomited almost as when swallowed. There are other times when for days and sometimes for weeks the stomach is so irritable that it will retain neither food nor medicine. In either of these conditions if there is urgent need for the administration of medicine some other way must be selected than by way of the stomach. The use of enemata or suppositories to give medicines in acute diseases where its frequent repetition is desired is unpleasant and annoying and sometimes would be practicably impossible. The use of medicated baths in general practice would be out of the question. There are many cases of sick children and nervous females where the frequent and continued use of the hypodermic syringe, which would be necessary in acute fevers, could not be endured. In most of these cases medicines can be administered epidermically with ease, comfort and safety. The desired dose can be regulated with a fair degree of accuracy and with a reasonable certainty of success. Not with liniments or plasters, cerates or ointments, nor yet with baths, but by the regular administration of fixed and definite doses of the medicine desired. The use of liniments and ointments in the treatment of sprains, bruises and sores is almost as old as the history of medicine, and no one doubts or disputes their efficacy under appropriate circumstances. The U. S. Dispensatory and the U. S. Pharmacopœia recognize their value and give them a place, but give very indefinite directions for their use, seldom saying how often they should be used or how much at a time. Neither do I find anywhere sufficiently definite directions how much of a particular liniment to use in a particular case, what quantity at a time, and how often.

The external use of medicine has generally been in rather a vague, indefinite and haphazard manner, and lacking that definiteness in regard to the size of the dose and frequency of repetition which prevails in the directions for doses to be put into the stomach. External medication has generally been employed as an adjuvant to the internal, and has not been depended upon for that certainty of effect which it could be, and is usually uncleanly and inconvenient in its application and uncertain and indefinite in its results. To remedy this we want to study how best to get the medicine through the skin in an easy and convenient and cleanly manner, and in such a way that we can guage the size and frequency of the doses to produce a definite and reliable effect. It is possible to administer a number of valuable medicines epidermically and gauge the dose and get the effect with almost as much certainty as when given by the stomach. It is a fact that a dose of medicine given with a hypodermic syringe is more sure in its action than one of the same medicine given by the stomach; because the stomach may be inactive at the time or filled with liquid which so dilutes the medicine that its prompt absorption is prevented and the effect of the medicine not obtained, or some other of the contents of the stomach may chemically act upon the medicine so as to change its nature and prevent the desired effect. For these reasons the hypodermic injection requires far less dose than the stomach, because when the dose is under the skin every drop is absorbed and its effect obtained.

In order to get the effect of a medicine, it is necessary that it should be in solution and enter the circulation, and it makes little difference whether it enters by way of the lymphatics, lacteals, or directly through the coats of the blood vessels. Nor does it matter what part of the person it enters the circulatory medium; if it only gets there the effect will be the same.

If a man who is unused to tobacco takes a chew of it and swallows the juice, he very soon knows what ails him. If he had received an injection of the infusion of tobacco, or had held a wad of wet tobacco under his arm awhile, or freely applied a strong tobacco ointment to his skin, the effect would have been the same.

If a man has ague, you can give him quinine in the stomach and cure it, or throw it under the skin with a hypodermic syringe and cure in that way, or you can draw a large blister on him and dress it with a quinine ointment, one drachm to the ounce of lard, and cure him, or you can put into a half pint bottle three drachms of quinine and half a drachm of aromatic sulphuric acid then fill with alcohol and direct that a tablespoonful be rubbed upon the skin at same intervals that you would have him swallow a dose and cure in that way. But there is another way which I very much prefer. It is to put the quinine into the palm of the hand then add half a drachm of alcohol, then have the patient rub the palms of both hands together to increase the absorbing surface. When the hands are dry, which will be in two or three minutes, add more alcohol, and when that is absorbed if there is still any of the powder upon the surface add more alcohol and repeat the rubbing. Generally two or three applications of the solvent are all that is necessary to procure a complete solution and absorption of the medicine. There is always a considerable amount of evaporation going on at the same time that the absorption does and for this reason more of the solvent has got to be used than would be necessary were there no evaporation. The dose should be repeated with the same regularity that it would be if given in the stomach. From repeated observations I judge that to procure a particular effect with a given medicine it requires about double the dose that it does when taken in the stomach. In calculating the effect of a dose of medicine rubbed into the hand there are several things to be taken into consideration in addition to the indication for the medicine.

First, the condition of skin. If it is hot and dry, absorption will be rapid and certain with less evaporation, the skin greedily drinking up whatever liquid is applied to it. But if the skin be moist and cold the absorption will be very slow and evaporation comparatively rapid. In such cases dry friction first would warm up the skin and quicken the circulation and hasten the absorption of the medicine subsequently applied. The condition of the blood vessels also makes a difference in the rapidity of absorption. If they are full and the circulation sluggish then absorption will be slow, but if the veins have been depleted then absorption will be more rapid. The nature of the medicine and that of the solvent also make a difference in the rapidity of absorption. If either of them are stimulating to the circulation they hasten absorption. Thus alcohol is a local stimulant and when used as a solvent causes more rapid absorption than when the solvent is some bland liquid.

Some medicines will be more readily absorbed than others. Thus when a gum, balsam, or resin cut with alcohol is applied to the skin, the alcohol and medicine separate, the alcohol is partly absorbed and partly evaporated, while the gum or resin forms a coating on the skin. For this reason but comparatively little effect is produced by laudanum used epidermically, while we can readily get a reliable effect from morphine. To get a good effect from the external application of a medicine it must be in perfect solution, and be of such a nature that it will not be easily precipitated. The solution should be stable, so that when the solvent is absorbed the medicine goes with it. When a dose of medicine is swallowed, it is out of sight and the patient gives it no further thought, but when it is given epidermically he must watch it and if necessary repeat the application of the solvent until the medicine is all absorbed. I have frequently employed this mode of administering medicine for the last twelve years, and have occasionally seen life saved by it which would otherwise have been lost. I have successfully conducted severe cases of pneumonia through from beginning to end in this way, without giving any medicine by the stomach.

The vomiting of pregnancy is generally relieved by the application three times a day to the hypogastrium of half a teaspoonful of a mixture of equal parts of tr. aconite root, tr. belladonna and tr. camphor. I have been able to depend upon this application more than any other one thing in those annoying cases.

A few years ago I was hurriedly called to see Mrs. W., who lived seven miles away, and when I arrived at the house I found it to be a case of miscarriage at two months with fearful flooding. Gave immediately half a drachm of fl. ext. ergot and the stomach instantly rejected it. The dose was repeated, and as quickly rejected. Other medicines were given with a like result. The patient was almost bloodless and rapidly sinking, and each effort at vomiting increased the hemorrhage. I did not dare to risk giving anything more by the stomach. So put two drachms of powdered black ergot into a bottle and added two ounces of alcohol; shook it up a few minutes, and then rubbed it into the hypogastrium. In five minutes afterward there was vigorous uterine contraction which expelled the placenta and arrested the hemorrhage. There was no further trouble, and the patient made a rapid recovery. Had I persevered in the effort to give medicines by the stomach, the result would have been death.

About six months ago I was attending a

lady who was nearly seventy years of age and who was sick with typhoid pneumonia. She grew worse until the pulse was 148, temperature 104°, respiration 42, the face pinched, a low muttering delirium and the whole aspect of the case looked bad. At this time the stomach began to reject all that was put into it, and then she refused to try to take anything more. I then began the administration of the same medicines in the hand, and from that day she began to get better and made a reasonably rapid and complete recovery.

I rarely attempt to give quinine or cinchonidia to a child, in the stomach, because I can get just as good an effect by giving it in the hand, and save getting the child prejudiced against medicine in compelling it to swallow the bitter stuff.

Homœopathy prospers, not because of any intrinsic merit in the theory of similars or of infinitesimals, but prospers in spite of those theories, because of the mighty fact that sugar is sweet, and that humanity abhors the bitter. We can then do much good to ourselves and much harm to homœopathy by avoiding bitter doses when it is possible. Many a time when I have prescribed medicines to be taken in the hand the patient has said: "I can take it very well in that way, but I do not believe that I could swallow it and keep it down." The palm of the hand is selected because it is the most convenient place to apply the medicine to, and also because it is so freely supplied with lymphatics and blood-vessels, giving it a greater absorbing power on the same surface than any other part of the person.

Grave Diseases of Pregnancy—Illustrated by Clinical Reports.

BY DR. E. TWISS.

[Paper read before the Calhoun County Medical Society, June 13, 1882.]

MRS. B., eighteen months married, age nineteen, primiparous, taken in labor and delivered of a living child April 4th, ult. Had a tedious gestation, the prominent feature of which was obstinate vomiting. Did not see her before the last half of gestation. The efforts to control the vomiting were well nigh if not wholly failures. Labor was not tedious. Was not sent for to deliver the woman; the husband wanted me to go and make another effort to stop the vomiting but I found the condition of things such that labor could be easily induced, which was accordingly done. The ejection before delivery consisted so far as observed of mucus, and tinged with bile. The pulse during gestation was not particularly observed, jaundice was present in a slight degree, but not strongly marked. After delivery patient complained of pain in the stomach (about midnight), but being tired and sleepy, I found a place to lie down, and went to sleep; about 3 or 4 o'clock in the morning one of the attending women awoke me to go and see the patient; on arriving at the bed-side we found that a large quantity of *something* had been thrown up by the patient, which we at that time took to be the contents of the upper bowels (and we are not now sure but what it was), at all events from whatever source it came, subsequent events showed us that what the patient had thrown up was blood. Not long after we got to the bed-side the patient went into convulsions, and she had three before they were controlled. About 18 hours after this she had another, which was all she had; would have had more, had they not have been prevented; the tendency to them was most of the time present. Now the skin began to assume a dark, jaundiced look, and the pulse became irregular, some quarters having 3 beats more than others. We now had four symptoms, viz.: bloody vomiting, convulsions, jaundiced skin, and irregular pulse. These four symptoms contributed a sign that there were breakers ahead. The bloody vomiting, the jaundiced skin, the irregular pulse, and that tendency to convulsions continued until April 7th (three days), when the patient died. The child at first acted as though it might live, but during the first day it begun to look badly, shrink up, went into convulsions similar to the mother, and its death preceeded that of the mother by a few hours. The urine of the mother contained no albumen, and what we thought was somewhat remarkable, directly after the convulsions the patient to all appearances was restored to full consciousness; even after the last one which was the hardest of all; this was the case. No post mortem; was tired out, and did not even ask for any. Have since wished we had; we had almost forgot to say that the patient was obstinately constipated, and the dejections showed large and indurated accumulations of feces, of too light color, and the bowels were with difficulty opened. The husband and wife (the patient) were much attached to each other, and the immediate members of the patient's family were kindly disposed towards her, but during early pregnancy certain things affecting some members of the family occurred which must necessarily have annoyed and depressed the patient, and so far as we can learn these were the only circumstances of a moral nature that would be looked upon as likely to have an unpleasant or perhaps an unfortunate influence upon the gestation. This was our case, and now comes the title to our article, and it is this: "What Was it? or, What Ailed Our Patient."

Now, we want to quote. Those of you who have Wood's Library for '79, containing Frerichs *on the Liver*, vol. 1, page 147, will be likely to recognize the case we have selected.

"Rosalie Rienert, æt. 35, admitted to hospital September 24th. Patient was a servant of robust constitution who had previously been healthy, who five years before had undergone a good confinement and was in the seventh month of her second pregnancy. Up to four days before her admission she had followed her employment as nursery maid, and had complained during the last week of a feeling of tightness and pressure in the scrobiculus cordis. On the 20th of September, when on the point of going to her work, she was seized with violent rigor, and at the same time with violent pains in the head; loss of appetite and jaundice of face made their appearance, for which complaints she first sought medical aid on the 24th of September. Patient came on first to hospital in a violent fever and scarcely in a condition to drag herself along. She blamed the treatment she had experienced at the hands of her master as the cause of her illness. Her consciousness was unimpaired, but she was very restless, and kept constantly rolling about in bed from side to side. She suffered from violent pains in the forehead and occiput, the countenance was pale and of a moderate yellow tinge, pupils normal, pulse 120 and soft, vomiting occurred from time to time by means of which undigested food, such as crude plums, was thrown up. The bowels were confined, the abdomen was greatly distended by tympanites, no hepatic dullness could be made out.

The urine was brown and loaded with the coloring matter of the bile. Early on the 25th labor pains came on and about 1 o'clock the patient was delivered of a six months' fœtus, which showed no traces of jaundice. During delivery there was a severe rigor and repeated vomiting of a blackish-gray grumous fluid, the patient complained of constant shivering and groaned much, and from time to time screamed loudly. On the 26th there had been no sleep during the night, the consciousness was unimpaired, there was frequent vomiting of black fluid, and notwithstanding the administration of compound infusion of senna no evacuation of the bowels had taken place. The hepatic region was tender upon firm pressure, no dullness could be made out here or in the splenic region; pulse small and weak, 104 to 108; respiration 24; great apathy. Towards evening apathy increased into coma, from which patient could not be roused. The vomiting of black fluid continued, no stool, lacteal discharge scanty, petechia upon the skin of the lower extremities; pulse 104, small; urine drawn by catheter, free from albumen, rich in bile pigments, vomiting of black matter continued during patient's unconscious condition. Toward evening the respiration became stertorous. At 4 o'clock on the evening of the 28th, death ensued amid symptoms of acute œdema of the lungs.

Now, query: What ailed this patient? From the symptoms delineated, have we any grounds on which to base a diagnosis? Here was moderate yellowness of countenance, black vomiting, but no convulsions are recorded. In the place of convulsions we have in this case apathy, which latterly merges into coma. We have in short apathy and coma, slight yellow tinge of countenance, and black vomiting, continuing during the life of the patient.

Autopsy twelve hours after death. Osteophytes on the inner surface of the skull and in places adherent to the dura mater. Pia mater and brain moderately congested and normal (the osteophytes, so far as we can learn, had no connection with the prominent symptoms of the patient). Pia mater and substance of the brain moderately congested and normal. Mucous membrane of bronchi pale and covered with mucus. Both lungs very œdematous, but otherwise normal. Pericardium contained an oz. of yellow serum. Numerous echymoses beneath the epicardium. Mucous membrane of the œsophagus, the epithelium of which was slightly peeled, was covered with a black pultaceous material, which was found accumulated in large quantities in the stomach, and extended thence throughout the whole of the small intestines, as far as the ileo caecal valve. Numerous normal blood corpuscles were detected in it by the microscope. Solid gray fæcal matter was found in the cœcum and colon. The kidneys were very large and soft; cortical substance grayish yellow and glandular. Epithelium in an advanced state of fatty degeneration. Liver was much atrophied, and principally in its thickness. Right lobe, 6x6 in.; left lobe, 5½x3¼; thickness of right lobe, 1⅙ in.; left lobe, ½ in. Estimated diminution in weight, nearly one half. Consistence soft; at places almost pultaceous; color brownish yellow; in its right lobe the branches of the hepatic vein were loaded with blood, which at some places appeared to be extravasated. Why that should be, for the life of us we cannot see, in view of the structure of the hepatic vein. The outer surface, especially of the left lobe, presented a wrinkled, finely granular character, owing to the hepatic cells having disappeared at some places and the parenchyma having collapsed. The depressed parts corresponded exactly with the circumference of the lobules. The hepatic artery appeared large. Nothing abnormal observed in the trunk of the portal vein. Injection of the branches of the portal vein could only be made to pass along imperfectly, a remark still more applicable to the hepatic artery. The injected matter penetrated readily into the ramificatious of the hepatic vein, but almost everywhere avoided the tissue at the central part of the lobules, and nowhere reached the capillaries of the portal vein, as far as the periphery of the lobules. The ramifications of the portal vein were completely filled with the injection, but the further passage of this into the capillary net work was obstructed. Only at a very few places was this net work partially filled. The substance injected into the hepatic vein penetrated as far as the central veins of the lobules, which appeared unusually large, but only entered a short way into the capillaries in the central part of the lobules, soon forming diffuse extravasations. To quote the whole of the report of the post mortem would be to spin out our article to too great a length, interesting and suggestive as it all is. And now the question very naturally suggests itself, Can this report, in so far as we have given it, aid us in diagnosing the case we had? This has been our view—hence the quotation. The report has been an attempt to give a description of the changes of structure which occur in acute yellow atrophy of the liver, accompanying gestation.

And right here this question suggests itself. What is the article itself? What has been done to the liver in order that this disease obtain? Take, for instance, one hepatic cell, composed (as anatomists tell us) of investing membrane (Glisson's capsule), parenchyma, ramifications of portal vein, hepatic artery, and hepatic vein, and nerves from the right phrenic coming from the 3rd, 4th and 5th cervical and sympathetic, right pneumogastric, both of compound function, and the sympathetic. Wherein has the normality of this cell changed, and what kind of abnormality has obtained, in order that we may say of it that it is in a condition of acute yellow atrophy? Pathologists have agreed upon the term degeneration (*i. e.*, when writing in our own language), and yet they write as though the condition, fatty, may or may not be present in this disease. Now, just what peculiar thing this degeneration is, we confess we do not know, and we do not know who does. But if the report of the case we have selected, in so far as we have given it, is of any value, it shows this, that accompanying the degeneration of this cell there is also a degeneration or obliteration in some way of the capillaries of the portal and hepatic vessels that are distributed to this cell. This obstructed capillary circulation must necessarily congest the organs which contribute to the make-up of the portal system, hence we can comprehend how it is that not only hemorrhage, but persistent and fatal hemorrhage, may and almost of necessity must, accompany this disease. It is further alleged that in healthy gestation and in healthy suckling a certain degree of degeneration occurs, not as a pathological, but as a physiological condition, affecting the kidneys and liver, more particularly the latter. If this assertion is well foumded, then in the condition of things called icterus gravis, we have this physiological change pass into the pathological, and here the work of the cellular pathologist comes to the aid of the general practitioner.

And now for the practical part of our article, premising first, however, that no one of us are liable to have, so to speak, icterus on the brain, for the disease is too rare, one in 10,000, according to the estimates of some. The chances are rather in favor of this article being forgotten before any of us will be called upon to treat or even look upon a case. Ours is the first case we have seen to recognize it (provided this was one) and yet it is among the possibilities (so far as any of us may know) that some one of us may have a case before the week is gone. And should we ever again be called to a case of vomiting in pregnancy we now think we should guard ourselves against too hastily concluding that we had a case of icterus gravis. And yet, should we have a case similar to the one we have reported, or even when one or more of the prominent symptoms of this disease were absent (for it is claimed that the disease may exist without any of the symptoms we have given) (Duneau), and if the condition of things did not improve under the administration of ordinary remedies, we would do what we did not do in the case before us, especially if the husband of our patient should say to us as the husband of our patient did: "I believe there is something the matter with her liver," we would think liver, any way. Here was a young husband not long since married to a young wife, and this her first gestation, having his thoughts in his anxiety for his wife directed, as we verily believe, right to the seat of the greatest lesion, and talking this to his medical adviser, and we were that self same individual, what we now say is not on the principle that misery loves company, but that, should you ever be called to a like case, you may sooner than we did have your thoughts directed in the right way. It is this: We have since that talked with six or eight physicians, perhaps more, about our case, and without exception, their minds were as oblivious as our own. Some hardly had an idea of the meaning of the term icterus gravis, or acute yellow atrophy of the liver accompanying gestation. Should it ever be the fortune or the misfortune of any of us to be called to a like case we will want to make an early diagnosis, the earlier the better, and whether we are clear in our ideas of the case or not, we should have help, and if the council should agree, the womb should, as soon as possible, or as soon as it can be prudently done, emptied of its contents, in the hope, forlorn though it may be, that the ravages of the lesions which obtain in this disease, may not have reached a point beyond repair, and that the patient may, if possible, be spared to her family and friends.

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Proceedings of Societies.

Michigan State Board of Health.

[Reported for the Detroit LANCET.]

The regular quarterly meeting of the State Board of Health was held July 11, at the office of the Board in Lansing, the following members being present: Leroy Parker, of Flint, president; Rev. D. C. Jacokes, Pontiac; Drs. Henry F. Lyster, Detroit; J. H. Kellogg, Battle Creek; John Avery, Greenville, and Henry B. Baker, of Lansing, secretary.

SMALL-POX AT FLINT.

Mr. Parker presented an account of an outbreak of small-pox, from which, and a report made by Dr. Lyster who had visited the case at Flint, it was determined that the first case was of a woman aged about 55 years, who traced her exposure to no other source than a peddler, supposed to have come from Canada, who had called at her house. Three weeks after the woman was taken sick the daughter came down with the disease, and in three weeks more a boy, exposed by the daughter, was taken sick. This case was diagnosed as chicken-pox. The health officer diagnosed the case as small-pox, but met with violent opposition when he attempted to quarantime the family. Other cases appeared, called chicken-pox by some and small-pox by others. Finally two physicians of Detroit went to Flint, and assured the citizens that the disease was small-pox, justifying the action of the health officer, who is seconded in his efforts to restrict the disease. There are some 15 cases of small-pox, and they are largely due to the willfulness of persons in trying to maintain that it was not small-pox, against the views of the health officer.

BUILDING INSPECTION.

Dr. Kellogg reported as a member of the joint committee of the State Board of Health and State Board of Charities, relative to the plans for a dormitory and school at the reform school, detailing the changes advised in the plans to make the building more perfect in a sanitary way.

Dr. Avery, as a member of the joint committee from the same boards to visit the reformatory at Ionia, reported that the warden assured the committee that the changes they had advised in the shops now under construction at that institution would be carried out.

WORK OF THE OFFICE.

The secretary presented a detailed report of the work performed in the office during the last quarter as follows: Much correspondence and hard work in starting the immigrant inspection service, which is now yielding valuable information as well as aiding in preventing the spread of diseases. The inspectors at Port Huron and Detroit now make weekly reports to this board. Three cases of small-pox have been found on trains at Port Huron, and many cases of measles have been found on trains between Port Huron and Detroit.

The various small documents printed by the board, for the prevention and restriction of diphtheria, scarlet fever, etc., and instructions as to the work of health officers in the restriction and prevention of various diseases, have been distributed to health officers throughout the State and a great many others, including masters and secretaries and lecturers of Michigan granges to the number of 840. These are sent in the hope that they will bring the subject before their organizations, and thus aid in disseminating information.

The returns of the names of 1,025 health officers in Michigan have been received, examined, and entered on the list, and a second demand sent for returns to such places as are yet dilatory. Correspondence has been larger than usual on account of some new work in regard to immigrant inspection, etc.

A letter was read from the manufacturers of a nursing bottle which had been criticised by this board as poisonous, having a lead sinker attached to the rubber tube, stating that the objectionable feature would not hereafter be manufactured by them. They have substituted a glass sinker.

CONTAGIOUS DISEASES.

A letter was received from J. Heitmann, health officer at Jamestown, Ottawa county, stating that scarlet fever was introduced into that township by immigrants from Holland, and eight deaths had occurred.

The secretary mentioned a report that scarlet fever was communicated to a cashier in a bank at Sault Ste. Marie, by money received from emigrants passing through there.

Dr. Lyster reported an outbreak of diphtheria in the upper peninsula, the disease having been brought in by immigrants.

A resumé of the work of other state boards of health was read by the secretary.

SANITARY CONVENTIONS.

An invitation for a sanitary convention at Reed City, signed by the editors, ministers, and doctors of the place was accepted conditionally. The time for the convention was fixed about the last of November. The board also voted to accept an invitation and hold a sanitary convention at Pontiac in January.

NATIONAL BOARD OF HEALTH.

The danger to public health interests, caused by insufficient appropriations for the National Board of Health, was considered, and telegrams expressive of the apprehensions of this board in case the work of the National Board of Health was crippled were sent to Michigan senators, and the president and secretary directed to forward a memorial to congress on the subject.

CHEMICAL ANALYSES.

Dr. Lyster introduced a preamble and resolution which was adopted as follows:

"WHEREAS, it is essential to the health and well being of the people of the commonwealth that all articles of food offered for sale should be free from adulteration;

Resolved, that this board have analyses and reports made, by experienced chemists, on such articles of food as may be submitted to them by the officers of this board, and that such sum of money as may be required, not exceeding $150 for the year 1882, be devoted to the necessary expense of such analyses."

Dr. Baker offered the following, which was adopted: "That the secretary be authorized to have analyses made of tissues, secretions, and excretions of the human body, to aid in determining the causes of certain diseases, at an expense not exceeding $100."

Dr. Lyster, special committee to report on the present knowledge respecting the cause and prevention of typhoid fever, read the introduction to a paper on this subject, which was accepted with thanks, and he was requested to complete the paper for publication in the report.

The examination of candidates in sanitary science was postponed until the October meeting of the board, which will occur October 10.

Health in Michigan.

For the week ending May 20, 1882, the reports indicate that influenza, typho-malarial fever, and puerperal fever increased, and that remittent fever, whooping-cough, intermittent fever, neuralgia, scarlet fever, inflammation of brain and membranous croup decreased in area of prevalence.

At the State Capitol, the prevailing winds were northeast; the average temperature was greater, the average day ozone was more, and the average absolute and relative humidity and the average night ozone were less, during the week ending May 20 than during the preceding week.

Including reports by regular observers, and others, diphtheria was reported present during the week ending May 20, and since, at 17 places; scarlet fever at 16 places; measles at

15 places; and small-pox at 8 places in all, as follows: At Detroit, Flint (two cases), Saginaw City and Wayne; at White Cloud (three cases), and Grand Rapids (two cases), May 22; at Manistee (three cases), May 23; at Battle Creek (five cases, one death), May 25, 1882.

For the week ending May 27, 1882, that consumption of lungs, whooping-cough, intermittent fever, and chicken-pox increased, and that diarrhœa decreased in area of prevalence.

At the State Capitol, the prevailing winds were west; the average absolute and average relative humidity, and the average day and night ozone were more, and the average temperature was lower during the week ending May 27, than during the preceding week.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending May 27, and since, at 17 places; scarlet fever at 12 places; measles at 18 places; and small-pox at 10 places, in all, as follows: At White Cloud (3 cases), May 22; at Buena Vista (2 cases), in Port Huron township (1 case), at Grand Rapids, at Manistee, at Cadillac (2 cases), and at Flint (1 new case), May 27; at Detroit (4 new cases), May 30; at Kalamazoo (2 cases, one fatal), May 31; at Battle Creek (3 deaths, no cases remaining), May 31.

For the week ending June 3, 1882, the reports indicate that inflammation of bowels, scarlet fever. and erysipelas increased, and that intermittent fever and pneumonia decreased in area of prevalence.

At the State Capitol, the prevailing winds were southwest; the average temperature was higher, the average absolute and average relative humidity, and the average day and night ozone were more during the week ending June 3, than during the preceding week.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 3, and since, at 18 places; scarlet fever at 17 places; measles at 19 places; and small-pox in 9 places, as follows: at Kalamazoo, June 1; at Detroit, (two new cases), at Wayne (in Wayne County Pest House), at Port Huron (one case), at Cadillac (2 cases, convalescent), and at Flint one case), June 3; at Grand Rapids (one death June 6, six cases June 7). Three cases of varioloid were reported at Pontiac, June 7, two being children successfully vaccinated last year and recently exposed to chicken-pox. May 27, a case of small-pox, from Quebec, was found at Port Huron on an immigrant train passing over the Grand Trunk Railway; May 29, a well marked case was found there on a train from New York. June 2, the sanitary inspector at Port Huron reported measles on an immigrant train passing through the State over the Chicago and Grand Trunk Railway. June 1, one case of measles was found, by the sanitary inspector at Detroit, among immigrants arriving on Canada Southern Railway, and leaving Detroit on the Michigan Central road.

For the week ending June 10, 1882, the reports indicate that typhoid fever increased, and that bronchitis, erysipelas, measles, consumption, whooping-cough, inflammation of bowels, and pneumonia, decreased in area of prevalence.

At the State Capitol, the prevailing winds were southwest; the average temperature was higher, the average absolute humidity and average day ozone were more, and the average relative humidity and average night ozone were less, during the week ending June 10, than during the preceding week.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 10, and since at 14 places; scarlet fever at 19 places; measles at 13 places; and small-pox at 7 places as follows: at Pontiac, June 7; at Flint, Detroit, Cadillac, and at Wayne County pest house, June 10; at Port Huron (one immigrant convalescent), June 11; at Grand Rapids (one death, June 12, seventeen cases), June 14.

For the week ending June 17, 1882, the reports indicate that neuralgia, diarrhœa, and measles increased and that remittent fever and influenza decreased in area of prevalence.

At the State Capitol, the prevailing winds were east; the average temperature was higher, the average absolute and average relative humidity were more, and the average day and night ozone were less, during the week ending June 17, than during the preceding week.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending June 17, and since, at 14 places; scarlet fever at 19 places; measles at 17 places; and small-pox at 7 places, as follows: at Port Huron (one immigrant, convalescent) June 11; at Kalamazoo (two cases, convalescing), Detroit, Flint, and at Wayne County pest house; at Grand Rapids (3 deaths during the week ending June 17, 3 new cases June 21); at Battle Creek (one new case), June 22, 1882.

Typhus fever was reported brought to Jacob City, Mackinac County; but health officer John Beeker reports it "chills and fever," "not typhus fever." A German woman, with five children, landed at Baltimore from the North-German-Lloyd steamer Ohio, April 9, was detained at Baltimore, afterwards arrived at Jacob City, with one child, both being sick and destitute. The husband, who lived at Jacob City, nursed them. In one week he was taken sick, and five days later he died. The other four children arrived at Jacob City, on the day of the father's death, sick with "chills and fever." All but the father recovered. No subsequent cases thus far reported.

For the week ending June 24, 1882, the reports indicate that cholera infantum and cholera morbus greatly increased, that erysipelas, inflammation of the bowels and intermittent fever increased, and that scarlet fever, influenza and pneumonia decreased in area of prevalence.

During the week ending June 24, at the State Capitol the prevailing winds were southeast, and compared with the preceding week the average temperature was higher, the average absolute and the average relative humidity and the average night ozone were the same, and the average day ozone was less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 24, and since, at 14 places; scarlet fever at 13 places, measles at 14 places and small-pox at 6 places, as follows: at Detroit and Flint; at Battle Creek (one new case), in Polkton, Ottawa County (one new case), in White Cloud, Newaygo County (four cases in mild form, all having been vaccinated this spring), June 22; at Grand Rapids (three new cases June 28, 30 cases in all including convalescents. One death June 28).

June 26, Dr. C. W. Shepard, of Mendon, writes of a recent outbreak of diphtheria at that place, that the source of contagion was traced to a house where the disease existed one year previous.

Dr. S. J. Hutchinson, of Northport, Leelanaw County, writes June 25, that the first case of diphtheria ever coming under his treatment in that locality is in a German family who have been there but six weeks. The disease appears to have been imported. Other members of the same family have been troubled with "sore throat" for four weeks or more.

Reports from sanitary inspectors during the week ending June 24, mention 10 cases of measles found among immigrants arriving at Port Huron and 8 cases of measles among those arriving at Detroit.

For the week ending July 1, 1862, the reports indicate that measles, typho-malarial fever, inflammation of the bowels, intermittent fever, whooping-cough and puerperal fever decreased in area of prevalance. There was no marked increase in any disease reported.

At the State Capitol, during the week ending July 1, the prevailing winds were northwest, and, compared with the preceding week, the average temperature was higher, the average absolute humidity and the average day ozone were more, the average relative humidity was about the same, and the average night ozone was less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending July 1 and since, at 12 places; scarlet fever at 14 places, measles at 13 places and small-pox at 4 places, as follows: at Detroit and Grand Rapids; at Kalamazoo (one case convalescent), July 3; at Flint (many cases), July 5.

Reports from sanitary inspectors for the week ending July 1, mention one case of measles brought by immigrants arriving at Port Huron and one case of measles among those arriving at Detroit.

For the week ending July 8, 1882, the reports indicate that diarrhœa and puerperal fever considerably increased, diphtheria, cholera morbus, remittent fever and measles increased, and bronchitis, rheumatism and cerebro-spinal meningitis decreased in area of prevalence.

Nothwithstanding the increased prevalence of diarrhœa, it is still far below what is usual at this season of the year; and the unusually cool summer is also noticeable for the greatly lessened prevalence of intermittent fever; the per cent. shown in this bulletin being 76, whereas in June and July, 1879 and 1880, over 90 per cent. of the reports received stated its presence.

At the state capitol, during the week ending July 8, the prevailing winds were south, and, compared with the preceding week, the average temperature was lower, the average absolute humidity, and the average relative day and night ozone were less, and the average relative humidity was slightly more.

Including reports by regular observers and

by others, diphtheria was reported present during the week ending July 8, and since, at 14 places, scarlet fever at 10 places, measles at 13 places, and small-pox at 4 places, as follows: at Grand Rapids (one death, July 8; one new case, July 9), at Detroit, and at Flint (13 cases); at Lansing (one case) July 12.

Dr. G. A. Harding, of Sault St. Marie, reports, at that place, July 3, a case of scarlet fever believed to have come from infected money brought by immigrants.

Dr. J. Heitmann, of Jamestown, Ottawa Co., reports, July 7, an outbreak of scarlet fever in that township. Schools and churches are closed and strict measures are taken against the spread of the disease. The disease was brought by recent immigrants from Holland. Of fifteen who contracted the disease from this source, seven have died.

For the week ending July 15, 1882, the reports indicate that cholera infantum considerably increased, cholera morbus, consumption of lungs, intermittent fever and dysentery increased, and that neuralgia, remittent fever and diarrhœa decreased in area of prevalence.

The cool weather of June and July seems to be attended in many parts of the state with less sickness, from several diseases, than is usual at this season of the year.

At the state capitol, during the week ending July 15, the prevailing winds were southwest; and, compared with the preceding week, the average temperature was higher, the average absolute humidity, and the average day and night ozone were more, and the average relative humidity was considerably less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending July 15, and since, at 12 places; scarlet fever at 12 places, measles at 13 places, and small-pox at 5 places, as follows: at Detroit (4 cases), at Flint (20 cases), at Lansing (one case), July 15; at Grand Rapids (3 new cases), July 16, and in the township of Greenfield, Wayne Co., July 19.

For the week ending July 15, sanitary inspectors report 10 cases of measles brought by immigrants arriving at Port Huron, and 5 cases of measles among those arriving at Detroit.

HENRY B. BAKER,
Secretary.

Lansing, July 21, 1882.

Meeting of the Calhoun County Medical Association at Marshall, June 18th, 1882.

The second quarterly meeting of this society was held at Marshall, June 13th., at 3 p. m. The meeting was called to order by the president.

Roll call showed the following members present:

Drs. J. F. Smiley, H. L. Joy, and J. H. Montgomery, of Marshall.

Drs. Amos Crosby and Henry VanOstrand, of Albion.

Dr. Geo. H. Green, of Burlington.

Dr. E. Twiss, of Athens.

Dr. A M. Haight, of Parma.

Dr. J. Y. Kezartee, of Ceresco.

Dr. W. N. Case, of Marengo.

Drs. E. Cox, Kate Lindsay, and W. B. Sprague, of Battle Creek.

The minutes of the preceding meeting were read and approved.

Dr. S. H. Bristol, of Albion, a graduate of Cleveland medical college in 1860, was proposed for membership. By a vote of the society the secretary was authorized to cast a ballot for his admission, which was accordingly done.

The reports of the various committees were called for, but no regular reports were prepared. Certain members, however, rendered short reports upon epidemics and endemics for their own sections. Dr. Cox reported that a case of small-pox was put off the train at the G. T. R. R. station in Battle Creek, on March 12th, and was promptly removed to the pest house, where he soon died of the disease. Two succeeding cases, imported in the same way, recovered. Three or four weeks since a lady returned from Chicago, where she had been stopping for a time, and soon afterward suffered from an indisposition which was called a bilious attack. Soon after this there were six cases of small-pox in the family, and four of the number died. It now occurred to the lady that she had been exposed to small-pox in Chicago, and her so-called "bilious attack" was doubtless varioloid. The family had been anti-vaccinationists in principle, but two of the children had been vaccinated at a neighbor's without the parents' consent, and these two wholly escaped the disease. The doctor also reported several cases of measles, one case of scarlatina, some chicken-pox and a number of cases of an eruptive disease which has some resemblance to varioloid and is very similar to measles. Drs. Sprague and Lindsay had seen numerous cases of the latter at and about the sanitarium, where it is called the German measles. It is probably imported by the many emigrant trains that pass through the city.

Dr. Van Ostrand reported a case in which there was a well-marked scarlet fever rash terminating in death before the rash disappeared. Three others in the same family were soon after taken sick and had sore throat without membrane and other symptoms of scarlet fever, but no eruption. An eclectic was soon called by the family and he pronounced the disease diphtheria. Dr. Bristol had seen the case with him and they wish to know if the society thinks such a diagnosis was in any sense justifiable while there was no membrane in the throat and none of the diphtheritic fetor. Several members considered it quite possible that there might be cases of diphtheria without visible membrane, but none thought it wise or safe to make such a diagnosis under the circumstances mentioned except there were an epidemic of diphtheria present at the time.

Dr. Green referred to a case which he had reported at the last meeting, of a child who had died suddenly of diphtheria without any known exposure and with cleanly surroundings. Two other cases of diphtheria subsequently developed, evidently from this exposure, and after recovery one of them had marked facial and laryngeal paralysis. It soon recovered under administration of elixir of quinine, iron and strychnia. Referring to cases difficult of diagnosis he related a case of measles in which there was a rash resembling scarlatina, which disappeared and was followed two days later by a typical measles eruption. There were none of the sequelæ of scarlatina, and measles spread rapidly in the neighborhood, evidently from this cause.

Dr. Kezartee reported a case of measles which was contracted in the north part of the State. Dr. Sprague reported two cases of parotiditis at the sanitarium. In the one case there had been apparently no possibility of exposure and there were no resulting cases, yet both glands were successively inflamed and there were other signs of mumps. In the other the patient was a child aged four months who had recently come to the sanitarium—reported because of the rarity of the disease at that age.

Unfinished business being called for, the proposed amendment to the constitution, extending eligibility to membership to adjoining counties, was adopted by a unanimous vote.

Dr. Lindsey then read a paper on the question, "Is the study of physiology in the public schools detrimental to womanhood?" Dr. Cox moved a vote of thanks, and a request that a copy of the paper be made the property of the society, adding that he considered it one of the most valuable papers ever presented to the society. The motion prevailed. A lively discussion then followed, particularly with reference to the relation of education to the prevention of abortion, and the best means of preventing the crime. Dr. Cox thinks that a liberal education in physiology is undoubtedly a benefit to a woman, but a slight knowledge encourages crime, and that the same views were held by the late Dr. Pitcher, of Detroit. Dr. Crosby thinks that a little knowledge is not a dangerous thing—that a little must be obtained before more can be acquired. Knowledge is always useful, if rightly used. It is better, on general principles, to educate the people, and the study of physiology in the schools ought to be encouraged. Dr. Green has known more abortionists who knew nothing of physiology than of those who were educated in any degree. He lived in a community where the people had been taught, by a charlatan, that abortion before quickening was not a crime, and it was very frequently practiced. By faithfully instructing his patients that abortion is murder from the moment of conception, he has, in the course of years been able to make a great change in public opinion, and in the frequency with which the crime is practiced in his vicinity. He thinks we should have text-books in our schools that would teach concerning the physiology and hygiene of the reproductive system, of dress, etc. Dr. Lindsay asks if any of the gentlemen ever knew of an abortion which could be certainly or justly attributed to any knowledge of physiology which the perpetrator had acquired. Dr. Twiss thinks not. He attributes the increase of abortion, as shown by statistics, not to better education of the people at the present day, but to the increase of population—the law of demand and supply—to parents overtaxed with offspring, and poorly supplied with means for their support, and to the male rather than to the female portion of the community. He believes that we must teach that, under certain circumstances, conception is a crime. Dr. Kezartee does not agree with all of Dr. Twiss' views. He thinks that most abortions occur not in large and indigent families, but among the wealthy, and with women who are devoted to pleasure.

Dr. Montgomery thinks physicians can do much toward suppressing the crime by discountenancing those in the profession who aid and encourage it.

Dr Twiss reported a case of uncontrollable vomiting occurring during gestation, in which delivery was shortly followed by violent convulsions, jaundice, irregular pulse, and, finally, death. During the labor the dejections had seemed tinged with bile, and there was only slight jaundice. Immediately following there was hæmatemesis. No autopsy was held. In this connection he quoted a case from vol. 1, page 147, of Wood's Library for 1879, with nearly identical symptomatology. In the latter case an autopsy found the lesions due to acute yellow atrophy of the liver. He accordingly concludes that his case was one of acute yellow atrophy of the liver accompanying gestation, and thinks that while it does not frequently occur, yet we should keep the possibility of its occurrence in mind as a safeguard against the mistake he committed of making too favorable a prognosis with the symptoms described.

The thanks of the society were tendered Dr. Twiss and a copy of the report was requested as the property of the association.

Adjourned for supper.

EVENING SESSION.

The president took the chair, and Dr. Van Ostrand moved that the next meeting be held at Albion. The motion being seconded by Dr. Crosby, prevailed.

Dr. Green then read an interesting paper upon the "Epidermic Administration of Medicine," embracing a report of considerable original investigation of the subject by himself. He received the thanks of the society and a request that a copy of his paper may become the property of the association.

The doctor then gave a verbal report of a case not mentioned in the paper. A patient suffering from puerperal peritonitis with septicæmia, was unable to endure any internal medication. He, in consultation with Dr. Ewers, of Union City, regarded the case as nearly or quite hopeless. From the necessities of the case the administration of remedies was epidermic, consisting of cinchonidia, morphia, and veratrum viride, applied upon the palmar surface of the hands, because this part is so abundantly supplied with lymphatics. The only internal administration was a small daily dose of laudanum. The patient made a good recovery.

Discussion of the regular topic was then called for, but because of the early arrival of trains upon which members must depart, a motion to adjourn to meet at Albion on the first Tuesday in September prevailed.

W. B. SPRAGUE,
Secretary.

G. H. GREENE, Pres't.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Death of Dr. Abram S. Heaton.

Dr. Heaton died July 9th, æt. 54 years. He was a native of Virginia, graduated in 1850 at the medical department of the University of Pennsylvania, practiced medicine among the copper mines of Michigan for nineteen years and the rest of his life in Detroit. His scholarly attainments, his tact and force of character procured for him abundant practice and large professional income. Since 1876 he has been gradually failing, until he succumbed to the complications of a nutmeg liver, granular kidneys, and extensive valvular disease of the heart.

Except his connection with Harper Hospital he never held any public position as a teacher of medicine. Yet he was a very earnest and careful student, and most skillful in applying recent discoveries for the benefit of his patients. He was firm in his adherence to what he regarded as the fundamental principles of medical polity, and his manly support of the same was the means of making him conspicuous among his professional acquaintances. Resolutions of respect were unanimously passed by a meeting of the profession of Detroit. Many tributes to his worth as a man, as a Christian, as a citizen and as a physician were given by different physicians.

Petition for the Adequate Support of the National Board of Health.

Among the live State Boards of Health that of Michigan has exerted its influence to sustain the National Board. The petition to which we here give prominence is an additional evidence of this. As a matter of fact it is difficult to make simple politicians or people whose entire life currents never touch the subject of sanitary work, believe that there is any profit in spending money in the manner illustrated by the National Board. And yet there can be no question that the money thus spent has been and will be as fruitful in real good to the material prosperity of the nation as money appropriated in any other manner. The size of the field, a continent, the complexity of the interests governmental, commercial, educational, agricultural are appalling elements to combine in any effective harmonious operations. We believe that it will be a National calamity if the National Board is starved out of accomplishing its proper work. We do not specially care for this board, if only a better can be devised, but we do want the National Health department made even more effective than it has been in the past. Those politicians interested will do well to remember that their votes on this question will be watched. The petition is as follows:

LANSING, MICH., July 12, 1882.

To the Honorable the Senate and House of Representatives in United States Congress assembled:

Your memorialist, the Michigan State Board of Health respectfully represents:

That small-pox, diphtheria and scarlet fever have been and are being repeatedly introduced into this State by immigrants newly-arrived from foreign infected places, and by travellers who have come in contact with such immigrants; that because of the rapidity of travel, and the vast amount of inter-state travel, it is impossible for State or local boards of health without extraordinary interference with inter-state commerce to successfully quarantine against or effectually control these diseases while the United States Government permits one or more of them to be introduced so frequently as of late by immigrant vessels which reach this country; that while in ordinary years the introduction of scarlet fever and diphtheria is believed to be of exceeding consequence in causing epidemics, in swelling the death rates, sickness rates, pauperism and general suffering, cholera and yellow fever are sometimes thus introduced, and at the present time small-pox is causing especially wide-spread disaster in this and other Western States; that, by reason of such introduction of diseases, the lives, health, and happiness—those dearest and most important interests of our people—are constantly destroyed or placed in imminent danger from those foreign pestilences from which it is entirely possible for the United States Government to afford protection; that we believe that it is the highest duty of a government to protect the lives of its citizens from the dangers which threaten all, and from which no other than governmental protection is adequate; that it is with deepest apprehension that this State Board of Health learns that by reason of insufficient provisions, in the Sundry Civil Service Appropriation Bill, for the National Board of Health, the important work which that board has lately commenced and is expected to do is likely to be crippled; that this board believes that now, more than ever before, is a most inopportune time to lessen in any way the activity and usefulness of the National Board of Health, believing as this board does that there is no other governmental department, bureau, or "service" so closely connected with the highest interests of all citizens and of humanity.

Therefore, this State Board of Health earnestly prays Congress to grant sufficient appropriations to the National Board of Health, and to make such other provisions as will enable it to continue the immigrant inspection service at all important ports of entry, and on important lines of travel, and to provide in every possible way for the protection of the whole country from cholera and yellow fever, and also from those contagious diseases hereinbefore mentioned which are well known as causing the most deaths and distress, throughout the greater portion of this country.

By direction and on behalf of the Michigan State Board of Health.

LE ROY PARKER,
President.

HENRY B. BAKER, Sec'y.

Another Combination of Well Known Drugs—Endorsement of the same by Physicians.

A circular letter has been sent to this office that illustrates a phase of the methods of copyrighted medicine dealers. A Canadian firm makes a mixture of "ten grains of saccharated pepsin, five grains of saccharated pancreatine, five grains of the acid phosphate of lime and ten grains of the exsiccated extract of malt." They call this mixture malto-pepsyn. To a eulogistic exposition of this compound is appended a long list of names of distinguished Canadian physicians, teachers in Canadian Medical Schools, and editors of a Canadian medical journal.

If there is one man among the list that cannot make as good a combination as this, and if there is any person pretending to keep a drug store that cannot compound the same, then low indeed must be the qualifications of the professions of medicine and pharmacy in that country.

It is a burlesque upon the intelligence of these professions that such a combination can receive the serious endorsement of any reputable practitioner. It would be just as sensible to make a combination of quinine, strychnia, arsenic, iron, and oleoresin of capsicum and call it capso-quinyn, and seek to place it upon the market as a distinct preparation protected by copyright.

It strikes us that doctors would be wiser in their generation to cease making any endorsements of remedies, for the purpose of advertising the same as commercial products. We are aware that many of these endorsements are obtained by flattery, others by appeals to vanity, others by bribery, and others still by more unworthy measures. Surely the leaders of the profession should take care to avoid the pitfalls that catch the weaker followers. The circular to which we have alluded has been sent to the profession of our part of the States. If it has the same effect upon others that it has had upon ourselves the result will not prove the enterprise a success. Observations of the events flowing from such endorsements of such matters by medical men of our own state has rendered it evident that wisdom compels the physician to withhold his name from all such documents.

Report of the Massachusetts Medical Examiners for 1881.*

In former issues we have directed attention to some features of the nature and practical operation of the Massachusetts law for examining bodies suspected of having been foully dealt with. The most careless observer is cognizant of the fact that under the coronor system existing in Michigan and most of the states, many innocent persons are unjustly accused of a horrible crime, and very many guilty ones entirely escape. The whole proceedure of the coronor's jury is admirably adapted to the escape of the real criminal, and the entanglement of the innocent. Outrages to society and outrages to the individual are of constant occurrence in every large town from this system. To meet out exact justice in every case is perhaps a utopian measure, but certainly every method should be adopted which will tend to the most accurate administration of such justice. Such a method we believe the Massachusetts medical examiner system has proved itself to be. It is susceptible of abundant proof that the present coronor system operates quite as frequently to conceal as to detect crime.

The examiners in the report before us say that four years of experience have demonstrated the advantages of the new legislation in Massachusetts to be as follows:

1. The investigation of the cause of death after supposed violence is unattended with the disagreeable and harrassing circumstances of partial publicity which were necessary under the old coroner's system.

2. A more certain and definite knowledge of the cause of death.

3. An inquest under a magistrate who presents his verdict without the inconvenience of a jury.

4. A written and detailed account, from both medical and judicial examiners, which forms a more convenient record for use by the district attorney in presenting the case before the grand jury.

5. A financial saving to the treasury of the counties.

6. An opportunity for study of pathological science.

The actual money saving was, for three years of the new system compared with the three previous years by the old coroner's system, about ten thousand dollars. This does not take into the account the fact that the population of the state had greatly increased during these years so that there were more deaths to be studied during the last than the former period.

Under our present system, if a man dies suddenly of heart disease without the least suspicion of violence or foul play, a coroner is generally sent for. He sends for a policeman or constable. These parties summon a jury. Then the witnesses are called. Last of all the nearest physician is summoned, by whose testimony it is shown that the man died a natural death.

The Massachusetts law reverses the order of procedure. The medical man first views the body, and in such a case as the one just quoted, simply reports it as a view, with a charge of $4 and mileage. If, however, he finds any reasonable suspicion of foul play as revealed by personal examination of the witnesses and of the body, or by an autopsy, if this be called for, then the case is reported to the proper authorities for inquest. Thus under the old law the proportion of inquests was as high as 40 per cent., while under the new law it has not been more than 22 per cent.

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*Transactions of the Massachusetts Medico-Legal Society, Vol. i, No. 4, 1881. Cambridge-Riverside Press.

We hope that this better system may be adopted by all the states, as best for all parties other than the criminal ones, and as promoting the study of the scientific questions relating to the nature and causes of sudden death.

Transactions of the Michigan State Medical Society.

We take occasion to express our gratification at the expeditious manner in which Dr. Ranney, the secretary of this society, has issued these transactions. The meeting was held in May and by the first of July the entire report lies upon our table, printed and bound.

As we so recently gave an account of the meeting in our columns it is needless to refer to the material contained in the volume before us.

The style of publication remains the same as in former years. Perhaps this is well, but it seems to us that a little better paper, press work, etc., would be a more fitting dress to the transactions of the medical profession of the State of Michigan. The more is this to be desired as the society, by its treasurer's report, has more money than it knows what to do with. Good thought well expressed is no doubt the most important item of such a report, but the better the dress of this item, the more will the item be respected and remembered. As a prominent preacher once remarked, "Clothes do not make the man, but a man looks best when well dressed." So too we think our transactions would look better dressed up in the best clothes the society can afford. As we have already stated the society can afford the best clothes in the market. We are the more inclined to insist upon this point because these transactions, like all similar publications, are more for ornament than for practical use. If we must have a separate volume in which to bury our transactions let us have this volume as handsome as the printer's art can make it.

Perhaps it may thus be kept in sight for the sake of its material form, and so entice many to read its contents that would otherwise pass them without notice. The same remark applies to the transactions of most of the State and other societies of this country. We are especially impelled to this line of remark because of the comparison of our volume of transactions with that of the American Gynæcological Society's, which lies upon our table beside it. The latter has all the elegance which the printer's art can give it, and ours, well the less said the better, in the line of elegant printing, press work, paper, etc.

Accurate Medical Thermometers.

Is your thermometer accurate? It goes for the saying that observations of the progress of diseases characterized by an elevated temperature are worthless for purposes of comparison unless taken with a perfectly accurate thermometer. Until within a short time the physicians of this country have been unable to obtain accutate thermometers. Different instruments from the same maker would vary from half a degree to two or three degrees. As a result none could draw any very accurate conclusions from the temperature reports recorded in the several reported cases. No doubt the observers, for the study of the individual case before them, received material assistance, but it was impossible for them to reason from one set of cases observed by one instrument to another set observed by a different instrument. Hence, they could not accurately determine the effects of various remedies upon the progress of the disease, or even the natural history of the cases.

During the past two years all this has been changed. Physicians have been able to have perfectly correct thermometers. Yale college established a bureau at which all thermometers sent to it were carefully tested, and the error found in them reported to the owner. With this correction each observer has been able to correct all his observations so that they may become absolutely uniform. The report of this bureau for the past year is now before us. During the year previous 1,667 physicians' thermometers were examined. During last year the number had increased to 3,811.

It is also stated that there has been a manifest improvement of the standards made by the American manufacturers. Large numbers of instruments have been placed with the bureau for the proper ageing before the marking. These instruments will have sent out with them a certificate stating this fact. It looks as if, within a reasonable time, manufacturers would see that their instruments were perfectly correct before offering them for sale. When it has become a fact that the make of certain parties is correct according to the Yale standard, then their value will be increased by at least the cost of having them corrected. Meantime it is a wise thing to send all uncorrected instruments to said bureau for correction. The cost is but trifling, far more than compensated by the satisfaction of knowing that one's instrument is correct, and capable of doing work to be relied upon everywhere in the world.

Benefits of Medical Societies.

It is our present purpose to call attention to some remarks on this subject as illustrated by the American Surgical Society.

The Annals of Surgery says: "We are not among those who look for any marked and new contributions to knowledge to result directly from such organizations as this. It is not in the papers that will be read, nor in the discussions which will arise, that the chief advantages to American surgery are to come, but rather in the spirit of fellowship which it will promote among its members, and in the mutual incitement to higher effort and better work, that its annual meetings will give to those who take part in them. It is particularly true of surgeons, and most especially so of the teachers of surgery in medical schools, that they are the victims of a tendency to the formation of admiring circles of disciples about themselves as centres, who do not hesitate to express the opinion that wisdom both begins and ends with the particular object of their admiration. The followers of Paul, Cephas and Apollos are still found among our modern Medical Corinthians. The effect of this kind of environment is to warp and stunt professional growth, and nothing is of greater value as an antidote than the frequent measuring of these leaders with each other. Each man realizes his own shortcomings, while he learns to respect, perhaps to emulate, the attainment and character of his fellows."

We think that with few exceptions these remarks will apply to all of the larger medical societies and medical organizations. Left to himself, the doctor as well as the surgeon gradually becomes so involved in his own daily work, that he becomes isolated from his brother doctors and very imperfectly comprehends his real relations to them and the great mass of the profession. By frequent mingling in medical societies he assimilates more of the general profession and is able to compare himself with others of similar attainments, or greater or less. In this manner he is helped to take his natural position among others of his profession. We are of the belief that had the members of the New York State Medical Society been regular attendants upon the American Medical Association they would never have taken such action, bearing on their personal relations among doctors as they really did take. As a corrective of past misunderstandings, as a stimulus to a normal professional growth, and as a prophylactic against future ills, we know of no better agent than medical societies. In fact we think that it would work infinite good if it was made a rule never to recognize as a doctor any man who was not an active member of at least one medical society.

Lectures as a Mode of Medical Teaching.

The *Medical Press and Circular* calls attention to this question recently, and makes the following remark: "Lectures have perhaps served a useful purpose, but the time has well nigh come when they must give place to direct medical teaching; when in place of talking to a hundred students, teachers must instruct a dozen or twenty at a time; when, in fine, demonstrations must replace lectures." There can be no question of the fact that by no other method than the one suggested, can the best training of medical students be accomplished. The best medical teachers confess, in their moments of honest confidence, that the system of exclusive teaching by lectures, as practiced in most medical colleges, is utterly unsatisfactory, and delusive. The students are not *taught* thus.

What is the reason why the better system, of recitations, demonstrations, and practical laboratory and practical clinical work has not been substituted for the lectures?

1. The lecture system has been followed for ages. Like all customs, it clings to life with surprising pertinacity. The machinery connected with it, all associations, all the past, in short, tend to keep it in its present status.

2. An old and very celebrated medical teacher said to the writer that the "real reason why the change was not made was that it would deplete the pockets of the teachers." Smaller classes mean smaller incomes from the pupils, and they mean less number of adherents among the profession. They mean a more restricted reputation. Quantity rather than quality, in reputation represents the desire of most medical teachers. Hence they stick to their lectures.

3. Both of the suggested reasons are rendered the more powerful by the rapid multiplication of medical schools. Beyond ques-

tion, this degrades, for the time being, medical education in all of its aspects.

Thus obstructed by the power of custom, by the desire for an extended reputation, or rather notoriety, by the desire for money, in large amounts and quickly, and by the fearful competition induced by the enormous increase of medical schools, it is no wonder that the rational methods of medical teaching have made slow progress. Still there are some who practically believe in them and are making a gradual change. Others will be added to the number and the subject will be discussed far and wide until at last all colleges which desire support from intelligent physicians will have entered upon the new way. It is this superiority of method in teaching that has made Vienna the place in which to learn most quickly and easily any special branch. Teachers are numerous, classes small, laboratories, demonstrations and practical clinical work abundant.

Material equal to that of Vienna can be had in any of our large cities, but the difficulty has been to get proper teachers to systematize the proper method. The establishment of courses for practitioners has been a step in the right direction. But it is as yet very imperfect, and does not touch the average medical student. Medical education wants more work from teachers and less wind; more demonstrations and less wordy guess-work. It wants real teaching in harmony with the general principles of teaching established by the experience of age. It wants the student taught to do, rather than simply to be told to do—or be shown how another can do.

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Memoranda.

During May eighty-four persons died from yellow fever in Havana.

For June the death rate of the city of Detroit was 21.49 per thousand of population per annum.

At his command, Dr. R. Koch has demonstrated to the German emperor his bacillus tuberculosis.

Dr. David W. Cheever has been elected to fill the chair of surgery in the Harvard Medical School.

A family of six persons at Murceaux, France, died from eating poisonous fungi for mushrooms.

Carl Mayshofer, professor of gynæcology in the Vienna University, died June 3 in his forty-sixth year.

The *London Lancet* has been sued for slander by the town of Brighton for pointing out the defects in its sanitation.

The Vienese students were greatly elated because Bilroth would not leave Vienna to take the chair vacated by Langenbeck at Berlin.

The thirteenth annual meeting of the American Pharmaceutical association will convene at Niagara Falls, N. Y., September 12th, at 3 P. M.

In 1492, George Pfeffer von Hell, I. U. D., Chancellor of the Electorate at Mentz, fell by accident into a privy and there perished a *privy Chancellor!*

A physician of Liege, France, has lately paid a fine of 500 francs for defamatory allusions to a neighboring druggist, with the object of injuring his business.

The announcement is made that the Bulletin of the National Board of Health will be suspended until further appropriations are made for its support.

Dr. Coiffier thinks that in young people, a clean tongue with a pulse of eighty-five is an almost certain indication of approaching phthisis of the lungs.

Taylor says: "During thirty years of practice, fifteen cases of exhumation were referred to him in which death was proved to have resulted from poison."

"Be just, be generous; but if you do meet with a dead lass, *sling him up*." Such were the instructions given one of his reviewers by Hepworth Dixon when editor of the Athenæum.

The new hospital at Brompton, for consumptives, cost over half a million dollars. The yearly expense of maintaining it is fifty thousand dollars. It is not endowed. Good chance for yearly begging.

A San Francisco druggist has discovered that an explosive mixture is formed by the grinding together of one part picric acid, one part tar, and afterwards cautiously adding five parts of chlorate of potash.

The Guiteau autopsy threw no further light upon the case. Nor did many seriously think it would do so. The brain was entirely healthy as far as could be discerned with the naked eye. The membranes were somewhat altered.

The *British Medical Journal* reports the case of a female patient in the Cork County hospital that had been cured but did not want to leave the hospital, who committed suicide by cramming a stocking down her throat.

Dr. Kedzie says that starched clothes could readily be rendered uninflammable. It is simply necessary to add a little borax to the starch before using. A teaspoonful of borax to the pint of starch was the amount recommended.

The *British Medical Journal* reports two cases of epidemic scarlet fever in which the source of contagion was the distribution of butchers' meat through the neighborhood, the first case being in the butcher's family.

At its late annual meeting the National Board of Health elected President—Dr. James L. Cabell, of Virginia; Vice-President —Dr. Stephen Smith, of New York; for Secretary—Dr. Thomas J. Turner, of U. S. Navy.

At the latest report, from the sixty counties of New York, two, the Tompkins and Clinton County societies, have adopted the new code. Twenty-eight have condemned it. Delaware, Chemung, Jefferson, Oneida, Seneca and Chautauqua are the last heard from.

Drs. Frothingham and MacLean have tendered their resignations, in case the Regents do not reverse their decision, and expel Dr. Joy. A meeting of the regents is called for Aug. 28th to consider the situation and adjust the difficulty.

M. Chevreul, senior chemist of the Paris academy, now in his 97th year, still continues at his work. Recently, while breakfasting with President Grevy, when asked to what he attributed his excellent health at such an advanced age, replied that he never drank any wine.

The *Edinburgh Medical Journal*, in a review of Ross's Work on the Nervous System, says that in one of the sentences borrowed from the German, sterne is translated as a proper name "Sterne," when it is really the German name for stars. The inevitable confusion of thought is considerable.

The New York Board of Estimates have appropriated $15,000 for the care of sick children during the summer months. This includes the salaries of a large number of physicians who are especially employed for this purpose. They also appropriated about $28,000 to various charitable institutions of the city.

Drs. Lewis D. Ford and L. A. Dugas have resigned their positions as members of the faculty of the Georgia Medical College, after a continuous service of over fifty years. Such a professional life is a wonder in this land of rapid changes. Perhaps the delightful climate in which their lives have been spent may account for the phenomena.

Dr. Chaille says: "If New Orleans were always kept clean, the influence of an overflow would prove comparatively harmless. At present it literally wallows in its own excrement. Of course it is a capital place in which for yellow fever to grow. Clean the city up and keep it cleaned up. This is a difficult and expensive task, but less so than the periodical loss of business and property from the prevalence of malignant diseases.

A distinguished French chemist, M. E. S. Maumene, announces that he has succeeded in making quinine artificially. If this can be done cheaper than by the present methods then the quinine bearing trees may be used for firewood. If it costs more, then the chemist will simply have made a reputation for future ages. If he proves unreliable he will rank with those who have been deluded.

By adding lard or oleomargarine to skimmed milk, a cheese is made which experts in England have been unable to distinguish from the cheese made with the milk and cream. Of course there is more money in making the cheese with lard, and the cream into butter. It has not been proven that the new cheese is not as healthy as the old. The matter is under consideration, and after a time some tangible result may be reached. Meantime the cheese is in market.

The reports of the health bureaus of the Prussian and Wurtemburg armies for 1874-78 show that during four years eighteen hundred and eighty-three soldiers were removed from the ranks on account of diseases of the ears. Twenty-three of these died. Seventeen hundred and one were rendered unable to perform duty. Thirty-three were made invalids. One hundred and twenty-six were complete invalids.

M. Triana has succeeded in tracing the new barks which for the last three years have been exported from Columbia in large quantities to a tree belonging to species of Remijia, of which several species are rich in the quinine alkaloids. So profitable has been the collection of this bark that the people of the region in which it grows have greatly neglected other business in order to get rich faster by collection of bark. This tree grows at a much lower level than even the red cinchona tree.

The *Sanitary Engineer* says: " A large part of the congressional hostility to the National Board of Health is evidently due to representations or misrepresentations made by the chief of the Marine Hospital Service, who has from the beginning been anxious to absorb the powers and duties of the board." We know nothing as to the truth of this statement, and we care little so long as the National health work is vigorously carried forward. The portion of this work that relates to the examination of immigrants in their passage through the country as well as at their entrance into it, could be very well accomplished by the Marine Service.

A Wisconsin doctor in careful observation of his last thirty-six cases of fracture of the legs of railway employees, finds in the trowsers of each case a parasite which he claims produces the broken legs. His proof is that he has placed some of the trowsers containing the parasite upon the legs of some cats and subsequently he found the cats in rat traps with their legs broken. The same inoculation of his wife's cows, which pasture in a field through which a railroad runs, resulted in finding many of them with legs broken. The doctor suggests that by cultivating this parasite in cattle and then inoculating men with it we shall be enabled to rid the world of the parasites which produce broken legs. Should it prove that the inoculation of trowsers with such parasite will protect against broken legs the name of Buhl will rank with that of Jenner, Pasteur, and Koch.

The *New York Medical Journal* says respecting the position of its state society. "It is better that the State of New York should stand aloof from the American Medical Association forever than retreat from the just stand it has made, or falter in the demolition of the medieval thralldom in which the old code so lately shrouded it." Brave words in view of the fact that of the twenty-five county societies of New York that have thus far expressed any opinion on this matter but one society has endorsed the action of the State Society. Twenty-four have directly repudiated the new code. It seems as if some of the "medieval" darkness still hovered over the state. Meantime the irregulars are smiling at what they are pleased to term the downfall of regular medicine.

From the daily papers we learn in the matter of charges made by Dr. G. E. Frothingham against Dr. D. A. Joy, both teachers in the medical department of the University of Michigan, relating to the advertisement of certain electric belts devised by Dr. Joy and endorsed by Dr. Frothingham, the Regents of the University have exonorated Dr. Joy from the charge of unworthy actions. Thus ends a matter which at one time created quite an excitement within and without the University walls. We trust the faculty of the medical department will remember the lesson viz.: "It is dangerous and entirely unprofitable to sign one's name to recommendations of anything whatsoever, be it surgical device, copyrighted medicine or even an edition of the Encyclopedia Britanica." The experiences they have had during the past year or so in being compelled to withdraw their signatures from such recommendations have taught outsiders a valuable lession of caution and we hope the gentlemen directly interested may also remember.

Editor's Book Table.

Transactions of the American Gynæcological Society, for 1881.*

This volume contains not only the report of the meeting of the society, all the papers read, and all the discussions thereon, but also a complete record of the gynæcological and obstetrical literature of all countries for the year 1880.

This last feature alone is sufficient to induce every student of these branches or of general medicine and surgery, to at once procure this volume and place it in his library for constant reference.

But there are also twenty papers from the leaders in the gynæcological work of the world. Hence the volume is invaluable to all practitioners of the medical art. It was a very happy thought that led this society to employ a competent reporter to take down all the discussions upon each paper and to append this report to the paper in the transactions. In this manner the reader gets not only the views of the writer but those of each member who holds different views upon the subject. As these reports are corrected by the speakers themselves we may be sure that the report is entirely correct.

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*TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. Vol. vi. For the year 1881. Philadelphia, Pa. Henry C. Lea's Son & Co. 1882. Cloth; pp. 542.

Under the title of "Acute Hyperæsthesia of the Peritoneum." Dr. Busey called attention to those cases in which after slight operations upon the uterus, a condition of pain in the abdomen is induced very like actual peritonitis, and which is accompanied by other symptoms like real peritonitis. But as the cases yield to the use of anodynes and rapidly recover he applies to them the above term. The discussion by the members showed that this class of cases was a large one, and the belief was that the pathology of the cases was some disturbance of the sensitive nerves. Dr. Campbell, of Georgia took occasion to present his well known views. He believes that the intermittency in cases like those under consideration, is due primarily to "excitation of cerebro-spinal nerve force; sometimes by malarial toxæmia, sometimes by centric hyperæmia, and more often by peripheric irritation reflected from the spinal cord to the general system." He uses the term "peritoneal tenderness" to express the same condition as that of the title of the paper.

"Exploratory Puncture of the Abdomen," is the subject of a paper by Dr. H. J. Garrigues. It is an endeavor to ascertain whether from an examination of the fluids of ovarian cysts, and of other fluid accumulations within the abdomen, it is possible to obtain data of value as a basis for diagnosis. The question is one of the utmost moment. The paper is based upon the careful examination of ninety-four cases. In fifty-seven of the cases an operation followed the examination, but in the remaining cases only tapping was done. In all the operative cases his predictions based upon an examination of the fluids, proved correct. From this we may argue that it was correct in the remainder of the cases. The result reached is that there are no pathological morphological elements in the fluid of the ovarian cysts. But while no character, either physical, chemical or microscopical is pathognomonic of myxoid ovarian cysts, in the sense that a single hooklet is characteristic of an echinococcus, still it must be added that he is convinced that in the great majority of cases he is able by the mere examination of the fluid to distinguish an ovarian from any other fluid. The exceptions to the rules must be born in mind, but it is improbable that any given case should present nothing but exceptions. Hence by paying attention to all the different characters—physical, chemical, and microscopic—it is in most cases possible to tell with certainty whether a certain fluid comes from an ovarian cyst or not. The importance of adding this information to the other examination of the patient will be at once apparent, to all who accept the views presented. He thinks it absurd to undertake an ovarian operation simply upon the examination of fluids.

The following discussion showed a variety of opinions respecting the advisability at all in cases of ovarian tumor. But all agreed that if done it should be performed with care.

Dr. G. H. Lyman asks for a more general recognation of the following considerations:

1. The fact that pelvic effusions are of extremely frequent occurrence, that they are very often not recognized, through error in diagnosis, and especially from the fact that when arising from pelvic peritonitis they are commonly absorbed, leaving only a focus of induration.

2. The extreme importance of recognizing in these effusions the earliest advent of suppuration, and in doubtful cases the propriety of a resort to an aspirator, as being the less of two evils.

3. Suppuration being recognized, the importance of giving early exit to the pus per vaginam, if by any means this can safely be accomplished, before the danger is incurred of its extension to the surrounding tissues with long continued and exhausting discharges. Forty-one illustrative cases are given.

Dr. N. Bozeman's paper upon genital renovation is full of suggestive facts.

Dr. H. F. Campbell reports a case in which a woman had erysipelas in child bed without puerperal peritonitis. The case is of much interest. Dr. Putnam Jacobi gave as an explanation, that erysipelas is a disease of the lymphatic system and may be confined to that system without the blood becoming affected. Hence, as there was no particular connection between the erysipelas of the face and the uterus, the wounded surface of the latter was not exposed to the poison.

Dr. E. W. Jenks, of Chicago, gives an entertaining history of the practice of the ancients upon various obstetric and gynæcological procedures. He shows that at least the rudiments of many accepted notions are very ancient in origin.

We have not space to notice in detail other papers. All are to the live worker in this branch important.

As usual, the mechanical execution is beyond criticism.

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Phillips on the Materia Medica and Therapeutics of Inorganic Substances.*

In 1879 Wood's Medical Library contained the portion of this work relating to the "Vegetable Kingdom." The two volumes before us complete the entire work. These volumes treat of the inorganic kingdom and are adapted to the United States Pharmacopœia by Dr. Lawrence Johnson.

The peculiarity of this work in its plan is that it combines pharmacology with therapeutics. Pharmaceutical chemistry is quite fully presented. Thus the reader can go back to first principles with the least trouble. Ample space is given to the presentation of the physiological action of the several drugs. At the present time this feature is an indispensable requisite in any work on materia medica.

We were especially interested in the chapter upon the nature and properties of the several waters. These are largely used and oftentimes recommended by the physician without any very definite idea of the effects likely to be attained. The fact that they are simply medicines largely diluted, and variously combined, is frequently lost sight of.

With the presentation here made by Phillips the physician has no excuse for ignorance respecting the principal European springs. As many of these waters are either imported or manufactured in this country, this presentation of the matter is timely. It is true that the mineral waters of America are not discussed, but to know something of a portion of the mineral springs is better than not to know anything of any. Unquestionably great good can be derived from the proper administration of these natural mineral waters. But they must be studied more carefully before we shall know how to prescribe them with scientific accuracy. At present there is too much truth in the popular sarcasm, that when a doctor does not know the disease affecting the patient, or does not know what to do for him, with any prospect of relieving his pains and discomforts he prescribes a visit to some mineral springs as far away as the patient's means will permit. Like all haphazard prescriptions the result is that some are relieved and some made much worse. In neither case is there much honor to the prescription or the prescriber. With the work before us at his disposal, the British practitioner will have a positive and valuable aid in determining what spring, if any, he will recommend to a given patient.

The American physician by comparing these springs with those in this country which he desires to study for therapeutical purposes will have some definite guide to follow; especially will he be able to prescribe intelligently the imported mineral waters.

The entire work is prepared with great care and is in the main entirely correct in its presentation of the facts pertaining to articles of the materia medica which it discusses. Hence it may be depended upon. It is written in a more than commonly pleasing style. It is issued in uniform character with Wood's Library for 1882.

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Von Troeltsch on Diseases of the Ear in Children.*

To most general practitioners it may seem a small matter to devote an entire volume simply to the affections of the ear in children. But if such an one will read with care the volume before us his wonder will be that such a book was not written before. In the many excellent works on the diseases of children but a very meagre account is given of the ear troubles. Hence the volume before us should be added to every work on the diseases of children in all medical libraries.

Concerning the reliability of the facts presented the author's name is sufficient guarantee.

The author calls attention to a peculiarity of the meatus of young children not sufficiently understood. "Every child of a certain age has a quite large opening in the lower anterior wall of the osseous canal which is produced by an irregularity in the growth of the bone at this point. This defect in ossification appears first in the child about the twelfth to the eighteenth month, is about the size of a cherry-stone and open toward the edge of the bone. Even to the fourth year this opening can be observed. The time of its closure varies greatly. It is clear that this opening constitutes a vulnerable spot through which purulent inflammation may extend toward the parotid gland and the region of the lower jaw."

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*MATERIA MEDICA AND THERAPEUTICS OF INORGANIC SUBSTANCES. By Charles D. F. Phillips, M. D. Edited and adapted to the U. S. Pharmacopœia by Dr. Lawrence Johnson. Vols. I and II. New York: William Wood & Co. 1882. Sold only by subscription—$15 for twelve volumes. Cloth; pp. 300 per volume.

*DISEASES OF THE EAR IN CHILDREN. By Anton Von Troeltsch, M. D. Translated by Dr. J. Orne Green, A. M., M. D. New York: William Wood & Co., 1882; cloth; pp. 162.

Abundant facts are adduced showing that "in childhood, aside from the few weeks immediately following birth, an unusually strong predisposition to diseases of the middle ear exists, owing on the one hand to the double influence of the peculiar morphological relations of the ear and the pharynx and on the other hand to the diseases and conditions of life to which the child is frequently exposed."

Thus, in 1857, Koppen reported the results of the examinations of twenty-four new-born children. The tympanum was found empty in six but contained fluid in eighteen. In four of the eighteen the fluid was pus.

The author, from forty-seven petrous bones taken from small children, found the middle ear normal in only eighteen. The remaining twenty-nine showed various degrees of purulent inflammation of the middle ears.

Schwartze says that two out of every five children newly-born will exhibit the middle ear filled with pus.

Kutscharianz, from children dying in the Moscow Foundling House from one day old to seven months, from two hundred and thirty accurately described cases, found the tympanic mucous membrane normal in only thirty cases. In all the rest there was organic disease. Other reports of a similar nature are given. In their nature they are astonishing. They show conclusively that in children who die very young the majority have more or less organic disease of the middle ears. They also show that the study of the ear affections of young children has not been as complete as it should have been. There is nothing special made respecting the description of the several affections of the different parts of the ears of children. Methods not only of examination by but of treatment are stated with the greatest perspicuity.

The publishers have issued the work with the greatest care and good taste.

Lewin on the Incidental Effects of Drugs.

By the incidental effects of drugs the author means those effects that are unusual. Every student and every practitioner is compelled to bear in mind these effects as constantly as he is the normal and usual effects. The exceptions to the rule here, as elsewhere, must never be forgotten. In the discussion of the action of drugs exceptions are generally noted, but only in the work before us are these exceptions gathered up and classified in a single work. The author has not only gathered up the results of the experiences of others, but he has added not a few important observations from his personal experience.

Why should these exceptions occur? The answer to this inquiry is not always obvious. The quality of the drug may vary in a great number of directions. Causes modifying the action of the drug may either be peculiar to the individual, or dependent upon temporary or local influences. If asked for an exact description of the anatomical peculiarity of the individual in whom quinine produces an exanthematous rash, we are unable to give it. So in respect to all other drugs. Still, as investigation of these subjects is now going on, we may hope for an answer in the future.

It is to be desired that this work will excite increased interest in this subject and so develop our knowledge in a hitherto relatively unknown field. For ourselves we have been intensely interested in reading the entire work. It gives a vivid illustration of the differences in structure and function of different individuals, and encourages even the routinist in medical practice to examine the path he is pursuing. It makes plainer than before the old proverb "one man's meat is another man's poison." It teaches that every person must be carefully studied both before and after the administration of every medicine, if we would have any idea of the real benefit conferred by the medicine. It makes still more emphatic the principle that the results of administering medicine in one, two or half a dozen cases will not establish any absolute truth respecting the general or special action of a medicine. In short the facts here brought together make it imperative that every individual case be medicated entirely upon its own basis. Vast experience with close observation will enable one to recog-

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***THE INCIDENTAL EFFECTS OF DRUGS, a pathological and clinical hand book, by Dr. L. Lewin, translated by Dr. W. T. Alexander: New York, William Wood & Co. 1882. Cloth, pp. 289.**

nize these differences between expartate individuals sooner and almost by means impossible to describe in words. The value of the family physician who has learned by experience the peculiarities of the blood, etc., of the families he has studied under so many circumstances is rendered in a truer light by this book.

It is a good book and should be in the hands of every doctor and every medical student in the world.

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Marey on "Double Irrigation and Drainage Tubes."*

The first of these papers describes the construction and uses of a rubber double catheter. Really two rubber tubes are placed side by side. They are handsomely finished and made of many sizes, suitable for their different uses. Those desiring to use injections into the bladder, into the uterus, into the rectum, into the stomach, or any other cavity, by the aid of this catheter can readily accomplish it.

In the second paper he shows how, by the aid of a couple of stitches in the cervix uteri, an apparatus may be fastened to it, and an elastic pressure made upon a solid plug which shall dilate the cervical canal. An illustration makes the matter quite plain. The antiseptic ligature of animal origin, which he prefers for closing the hernial canals, is made from the tendon of the moose. The hernial sac is cut down upon and the openings closed by the suture, antiseptic precautions having been employed. He claims that this is the very best method of treating these distressing cases.

JENKS, ON GYNÆCOLOGY IN ANCIENT TIMES. Reprint from the Transactions of the American Gynæcological Society for 1881. Paper; pp. 46. An interesting account of the past literature upon this subject.

BROWNE ON "COMBINED INTRA-UTERINE AND EXTRA-UTERINE PREGNANCY." Reprint from the American Gynæcological Society's Transactions for 1881. pp. 19; paper, This is based upon a study of twenty-four cases.

BOZEMAN ON "GENITAL RENOVATION." Reprint from the Gynæcological Society's Transactions for 1881. Paper; pp. 43. This paper is based upon an exhaustive study of fourteen cases

ROBERTS' REPORT ON SURGERY. Reprint from the American Practitioner. Paper; pp. 17. Read before the Kentucky State Medical Society, 1882.

NELSON ON THE PLASTIC SPLINT IN SURGERY. Reprint from the Annals of Surgery. Paper; pp. 18. This paper discusses in some detail the plastic splints made from starch, dextrine, glue and oxide of zinc, paper, silica, tripolith and plaster of Paris.

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Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and Albert B. Lyons, M. D

Action of Remedies.

THE ACTION OF SALICYLIC ACID UPON BLOOD-CELLS AND UPON AMŒBOID MOVEMENTS AND MIGRATION.—It was shown by Dr. T. Mitchell Prudden, in the January number of the *American Journal of the Medical Sciences* for 1881, that dilute carbolic acid possesses an inhibitory power over the amœboid movements and the capacity for emigration of the white blood-cells; and it was suggested as extremely probable, therefore, that a part of the favorable action of carbolic acid in the healing of wounds, at least in so far as the prevention of undue suppuration is concerned, is owing to the reduced activity of the white blood-cells. In view of this suggestive probability, for absolute proof is scarcely to be expected with our present facilities for investigation, it is evidently important to know whether the effects of other agents which exert a like favorable influence upon the healing process can be partially or entirely accounted for on the same grounds. As one of the most important competitors for favor in antiseptic surgery salicylic acid is the first to suggest itself, and it is of interest to compare the results which Dr. Prudden has obtained from experiments with it with those obtained when carbolic acid is employed.

Dr. Prudden finds that the latter is less inimical, in solutions of the same percentage strength, to the life and functions of the blood-cells than is salicylic acid. For neither upon the slide nor in the blood vessels or the tissues can the movement of the leucocytes be re-established when they have been brought to rest by salicylic acid, and the morphological changes produced by it are much more prompt and marked. It does not of course follow from these experiments that the action of salicylic acid in restraining emigration is peculiar to it in virtue of any properties other than those which it possesses in common with such dilute acids as acetic and hydrochloric, for these also in dilute solution are capable of restraining emigration, although with the exhibition of somewhat dif-

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*ON "UTERINE DILATATION BY ELASTIC FORCE," and on "THE CURE OF HERNIA BY THE ANTISEPTIC USE OF THE ANIMAL LIGATURE." Reprinted from the *Trans. International Medical Congress* for 1881. Paper, pp. 12

ferent phenomena. It is sufficient to show, experimentally, that salicylic acid does restrain emigration, and is inimical in strong solution, to the life, and in dilute solutions to the activity of the white blood-cells; and to suggest, as was done in the case of carbolic acid, the probability that some of its favorable effects, when applied as a surgical dressing, are due to its direct action upon the living white blood-cells.

GOSSYPIUM HERBACEUM.—From some experiments made by Dr. J. Charles Martin with a fluid extract of gossypium on frogs, an account of which is published in the *American Journal of the Medical Sciences* for Jan., 1882, he concludes that gossypium has no action on the peripheral or spinal nerves, the responses of nerve and muscle being precisely the same in the limb cut off from the general circulation as in the other extremity. The reflex functions, and mobility and sensibility are the same after the division of the medulla; hence, the stupor which is noticed after large doses is due to the cerebral effects of the drug.

In warm-blooded animals the results possess a general resemblance to those in cold-blooded—a gradually increasing stupor, impairment of mobility and sensibility, but only in the same ratio with the cerebral depression, while the entire absence of uterine action, even with toxic dose of the drug, in view of the reputation as an abortifacient possessed by gossypium, is well worthy of notice.

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Chemistry and Pharmacy.

BORO-GLYCERIDE A NEW ANTISEPTIC.—Prof. Barff has recently called attention to the remarkable antiseptic virtues of a compound of glyceryl and boracic anhydride, which promises to be of the greatest value in the preservation of meats and other articles of food, if it proves to be wholly without deleterious properties. Boracic acid dissolves quite freely in glycerine, but without any chemical reaction, and the solution has the physical and chemical properties of both the ingredients. If however equivalent quantities are heated together for some time, a true chemical compound is formed, with elimination of water, according to the equation, $C_3H_5(HO)_3+H_3BO_3=C_3H_5BO_3+3H_2O$.

The new substance forms a glass like solid which dissolves quite readily in water, and has none of the sweet taste of glycerine, in fact has only a feeble saline taste which is scarcely perceptible in solutions such as are employed for the preservation of meats, etc. Cream and meats treated with the solution were found in good condition after a long voyage in a tropical climate, and seemed to have lost none of their natural flavor, provided only they were properly secured in cans.

A two per cent. solution was commonly employed, sometimes one containing three, four, or even five per cent. It is believed that such a solution will replace the poisonous preserving fluids now in use in injecting cadavers and preserving anatomical and pathological specimens. The directions given for preparing the boro-glyceride are as follows.

Heat 92 grams of glycerine in a capsule to a tolerably high temperature, and add to it gradually 62 grams of boracic acid, stirring frequently. Continue the heat as long as any vapor of water is given off, the time required being an hour or more. The heating must be continued until a sample taken out is found to have no longer a sweet taste.

The boro-glyceride forms a very cheap as well as a very efficient preservative agent, and Prof. Barff declares that it is perfectly harmless.

THE ALKALOIDS OF PAO PEREIRA—(*Geissospermum læve*).—E. Czerniewski, in an inaugural thesis, reports the results of a careful study of this subject, especially in its relations to toxicology, as follows:

1. From acid solutions geissospermin is extracted by benzole and chloroform, pereirin only by chloroform; from alkaline solutions geissospermin is removed by benzole, chloroform and amylic alcohol; pereirin by petroleum ether, benzole and chloroform.

2. Geissospermin is distinguished from strychnia by the fact that it is taken up by its solvents from acid solutions, by the reaction with Frœhde's regent, and by the physiological test.

3. Pereirin may be distinguished from brucia by the fact that chloroform removes it from acid solutions, by its reaction with gold chloride, by its behavior with nitric acid and stannous chloride—in which reaction a striking similarity between the two alkaloids is also shown—and by the physiological test.

4. Geissospermin is rapidly absorbed from the alimentary canal, and is eliminated by the kidneys. The elimination reaches a maximum rate in from 24 to 72 hours.

5. Pereirin is readily absorbed from the intestines, but is apparently for the most part decomposed in passing through the system.

6. In a forensic analysis, geissospermin is

to be sought in vomited matters, in the stomach, small and large intestines, liver, feces and urine. Pereirin is to be looked for in vomited matters, in the stomach, small intestines, blood, liver and lungs.

7. The following reactions of pereirin are especially worthy of note:

(*a*) The red color produced on adding to its solution in dilute sulphuric acid a solution of potassium bichromate.

(*b*) The red precipitate produced by gold chloride.

(*c*) The non-appearance of a red color on warming with mercury nitrate.

DETECTION OF OLEOMARGARINE.—Hitherto reliance has been chiefly placed upon the proportion of insoluble fatty acids contained in the sample of suspected butter, pure butter yielding only 87½ per cent., against 95½ per cent. in the substitutes. An alternative process consists in saponifying the suspected butter with a standard solution of caustic potash. One gram of pure butter requires of this solution 225 to 232 c.c., while the oleomargarine requires only 195 to 197 c.c. These processes, however, both require some skill in chemical manipulation, and hence do not commend themselves for general adoption.

P. Casamajor recommends a plan already suggested by Mm. Leune and Harburet, depending on the difference in specific gravity of butter and oleomargarine. He states that pure butter remains in equilibrium (*i. e.* with no tendency either to float or to sink) in alcohol of sp. gr. 0.926, containing, therefore, 53.7 per cent. (volume) of absolute alcohol, or about 56.5 per cent. (volume) of the strong alcohol of commerce. Oleomargarine remains in equilibrium in alcohol of sp. gr. 0.915, containing 59.2 per cent. (volume) of absolute, or 62.3 per cent. (volume) of commercial alcohol.

It is only necessary, then, to prepare, once for all, three mixtures of alcohol and water having the specific gravities respectively of 0.915, 0.9205, and 0.926. The second of these may be employed for the qualitative test which is made as follows:

Place the alcohol in a suitable beaker; melt the butter in a spoon, allowing salt and other impurities to subside; then holding the spoon near the surface of the alcohol, allow a large drop of the melted fat to fall gently into it. If any air bubbles adhere to it, remove them by means of a bit of paper. If the drop float on the surface of the alcohol, cause it to sink by jarring the beaker. The temperature of the alcohol must be always 15° C. (59° F). Butter will sink, oleomargarine will float. If the temperature of the alcohol be raised to 30° C. (86° F.) oleomargarine may remain liquid, but butter will not melt, and the globule at this temperature will come to the surface of the liquid.

In case the fat consists of a mixture of oleomargarine and true butter, it will have a specific gravity intermediate between 0.915 and 0.926. If it sink therefore in the alcoholic menstruum in the first experiment, a second trial must be made with alcohol of sp. gr. 926, in which the butter if pure will remain in equilibrium at the temperature of 15°C. If it is adulterated it will float. To determine the amount of adulteration, having taken a measured quantity of the alcohol of sp. gr. 926, in which the globule of fat floats, add little by little alcohol of sp. gr. .915 until (at 15°C.) equilibrium is exactly secured, noting the quantity of alcohol required. The relative quantity of the two menstrua is the same as the relative amounts of the true and factitious butter. Thus if 100 parts of menstruum No. 1, have been taken, and to this 35 parts of menstruum No. 2, have been added to secure equilibrium, there are 35 parts of the oleomargarine to 100 of the latter, or $\frac{35}{135} = 26$ per cent. nearly.

OZONE AS A PRESERVATIVE AGENT.—For some months past there has been widely advertised by a firm in Cincinnati a preparation called "ozone" for the preservation of eggs, fruit and all manner of perishable articles. That it was not ozone, every well informed person knew at once, and those who knew anything of the properties of ozone were only surprised that so inappropriate a name should have been chosen to aid the sale of what was undoubtedly some well known—and probably really efficient—antiseptic.

We are now told by one who forwarded the requisite shekels to the company that he received in return five cents worth—or less—of sulphur mixed with some black powder (surmised to be coal dust; was it not black oxide of manganese?) which was to be burned according to directions to produce the ozone. We fear that some purchasers have been disappointed in "ozone," if they really expected that it would do all that was claimed in the advertisements.

INDIGENOUS DRUGS.—The following statistical items from a paper by W. J. Van Patten, (Proc. Vermont Pharmaceutical Association), will interest readers of the LANCET, Mr. Z. H. Farrand, of Essex, who does a large business in the collecting and preparing for market of native drugs, states that his list comprises upwards of 250 articles, of which about 200 are strictly indigenous, the remainder being cultivated. The following are among the larger items of his last year's collection: 9,000 pounds of stramonium, 3,000 pounds of tansy, 2,000 pounds of witch hazel, 2,400 pounds of skullcap, 20,500 pounds of elecampane, 6,000 pounds of tamarack bark, 4,800 pounds of butternut bark, 2,800 pounds of poplar bark, 8,500 pounds of boneset, 2,500 pounds of lobelia, 2,000 pounds of soft maple bark, 2,000 pounds of black cherry bark, 3,500 pounds of cleavers. Some of the items will excite surprise in some minds, as, 250 pounds Canada thistle, 400 pounds apple tree bark, 1,600 pounds birch bark, 1,250 pounds garden lettuce, 160 pounds chickweed, 750 pounds white daisies, 215 pounds yellow daisies, 700 pounds beech bark, and 660 pounds pumpkin seed.

NATIVE QUININE. — We are indebted, through *New Remedies*, to the report of the United States Commissioner of Agriculture for 1882, for the following account of an article which, under the above name, is used in Western Pennsylvania as a substitute for quinine:

It is said to be taken from pine trees, on which it forms an excrescence. It is a soft, white, almost structureless wood, with fragments of a scaly, brown bark. It is so spongy and gummy that it is almost impossible to reduce it to powder. The taste is at first gummy and sweetish, then after a time quite bitter. An alcoholic tincture has a decided vanilla-like odor, which seems to be due to the presence of vanillin, itself a product of the oxidation of coniferin. Analysis gives the following results:

Resin, - - - - -	68.15
Albuminoids - - - -	3.59
Impure coniferin, - -	6.09
Gum, fibre, etc., - -	22.17
	100.00

KOLA NUTS, A SUBSTITUTE FOR COFFEE— Kola nuts, known also as ombémé nuts, are employed in Western Africa to render stagnant water palatable, and to counteract its injurious effects, and they have been supposed to owe their virtue to the presence in them of caffein. They are the product of a plant, Sterculia acuminata, botanically related to that which produces the well-known cacao, or chocolate. A recent analysis by E. Heckel and H. Fr. Schlagdenhauffen, has developed several interesting facts in regard to their composition. They contain caffein, in a free state, in quantities greater even than is found in the coffee bean—exact proportion not stated. This alkaloid is, however, accompanied by that found in the cacao—theobromina—which is in fact closely related (chemically) to it, and is capable of being converted into it by the action of reagents.

Like cacao, the kola nut contains the red coloring matter which has been named cacao red; it contains starch in larger proportion than the cacao, but is almost free from fat, of which the cacao contains upwards of fifty per cent. The kola, unlike cacao, contains a notable amount of glucose, and of a variety of tannic acid resembling that found in the coffee bean. In London and Western Africa the seeds are used medicinally for the relief or cure of diseases of the intestines and liver, and especially in atony of the digestive tract, and they are also chewed by the natives as the betel nut is in India.

Dermatology.

THE SMALL PUSTULAR SCROFULODERM.— In the *American Journal of the Medical Sciences* for January, 1882, Prof. Louis A. Duhring describes, under the above title, a rare and hitherto undescribed form of disease, which is characterized by marked and well-defined lesions, of obstinate and chronic course, and always tending to terminate in scarring. Dr. Duhring describes the eruption, which has many points resembling the syphilodermata, but which must be viewed as a manifestation of scrofulosis, as follows: It consists in the formation of pin-head and small split-pea sized, disseminated, yellowish, flat pustules, with usually a raised violaceous areola. In general appearance the lesions resemble those of the small pustular syphiloderm. They crust over gradually in the course of from one to several weeks, with depressed, shrunken, hard or horny, yellowish or grayish, adherent crusts, which in time drop off, leaving marked, punched-out looking, indelible scars, resembling those of variola. The lesions are further characterized by a sluggish, chronic course, and may last weeks or months. They appear at irregular periods, new ones coming out as the older ones disappear, so that the patient is rarely free from them. The disease may continue for years It may occur upon any region, but it generally shows a disposition to appear about the face and on the extremities. Other symptoms of scrofulosis are generally present. Dr. Duhring reports three cases of the disease, and discusses the treatment which he has found to be most successful.

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Diseases of Women.

How to Deal with Uterine Fibroids. Dr. Wm. Varian (*Medical and Surgical Reporter*, Feb. 25, 1882) describes his method thus:

After the usual primary incision of the abdominal walls through the linea alba, I proposed (*a*) to cut in the line of the original incision, through the capsule of the tumor; (*b*) to enucleate and remove so much of the fibroma as was convenient to the operator, and as could be done without endangering the patient from hemorrhage or shock, the amount thus removed being immaterial, as the taking away of a small portion assured the destruction of the growth as effectually as of a large; (*c*) to include the two incisions in the same sutures, and thus secure agglutination of the peritoneal surfaces; (*d*) after the expiration of a certain time, say from 24 to 72 hours, as the indications demanded, to remove so many of the sutures as were necessary to give free access to the cavity of the capsule; (*e*) by the combined use of therapeutical (ergot) and mechanical measures (the instruments and fingers of the surgeon), to remove the fibroma from day to day, *piecemeal*, as it was loosened and thrust forward by the contraction of the sac; (*f*) when this was accomplished pare the edges and close the external wound.

I claimed that by this course the operator would secure—

1. The shortest possible incision of the peritoneum. No mean advantage, since statistics show that the danger in laparotomy is greatly increased by extending the abdominal incision.

2. Total exclusion of blood or irritating discharges from the abdominal cavity by the early agglutination of the peritoneal surfaces. This reduces the risk of peritonitis to the minimum.

3. Absence of severe hemorrhage, excessive shock, and the necessity of exposing or handling a great extent of peritoneal surface. This avoids the principal factors of danger in all operations for rapid extirpation of these tumors.

4. Facility of access to the tumor. The surgeon has it directly under his eye and can ensure (*a*) The prompt removal of the mass as fast as it is loosened from its capsule. This anticipates and prevents decomposition. (*b*) Thorough antisepsis, drainage, and, if necessary, irrigation of the sac. This removes almost all risk of septicæmia. (*c*) Perfect control over all tendency to hemorrhage. (*d*) Rapid extraction and removal of the fibroma by the mechanical and therapeutical resources of the surgeon.

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Gynæcology.

Sinclair on Treatment of Subinvolution of the Uterus.—This writer (*Boston Med. Jour.*, April 13, '82) gives the following as a plan which has given him much satisfaction in the treatment of these cases:

1. To rectify the displacement which, if it existed for some time, has given rise to endometritis and increased vascular engorgement.

2. To reduce vascular turgidity by local bleeding, repeated at intervals of from seven to ten days.

3. Menorrhagia usually dependent on an altered state of the endometrium, relieved by the use of the wire curette; so, also, the morbidly altered cervical glands.

4. To promote healthy and absorptive action of the endometrium and cervix, Churchill's tincture of iodine is applied by means of a probe covered with absorbent cotton, or injected into the uterus by aid of a double catheter. This may be used once a week.

5. Daily vaginal enemata of water at a temperature of 115°F.

6. If there be deep and gaping laceration of the cervix, repair by plastic operation as indicated; although what appears to be a pretty deep fissure on first examination becomes shallow and insignificant after a course of treatment.

7. General constitutional treatment. This must vary with the conditions present, but generally a mixture containing sulphate of iron, dilute sulphuric acid, and sulphate of magnesia with ergot, is given to strengthen the system and diminish local plethora.

8. Suitable diet and clothing.

9. I have not ordered rest in the treatment of these cases, provided patients could take exercise, for I have found less chronic invalidism accompany uterine disease generally where the subjects of them were advised to go into the open air as much as possible, and to avoid passing their days on the bed or sofa.

Medical Jurisprudence.

ON THE DETECTION OF BLOOD STAINS.—Dragendorff (*Lond. Med. Record*, *Untersuch über Blutspuren*, Pharm. Jour, vol. xii,) has made valuable contributions to our knowledge of this subject:

Hæmogoblin possesses the power of absorbing oxygen, which is again given off in contact with reducing agents. Oxyhæmoglobine, examined spectroscopically, shows a characteristic spectrum. It is soluble in water, as well as in aqueous solutions of potassium iodide, borax, and very dilute potash or ammonia. These saline solutions dissolve the oxyhæmoglobine from old blood-stains more readily than pure water. A cold saturated solution of borax is especially to be recommended for this purpose, since the solution is not liable to decompose. Oxyhæmoglobine loses oxygen when placed in contact with reducing agents, and it then yields a characteristic spectrum of reduced hæmoglobine. If ammonium or sodium sulphide be used as the reducing agent, the spectrum of the reduced hæmoglobine may pass gradually into that of sulphohæmatine. Acetic acid and similar agents transform hæmoglobine into hæmatine, which likewise possesses a characteristic spectrum. Warming with dilute solutions of potash or soda sometimes converts it into reduced hæmatine. The guaiacum and hydrogen dioxide test, being one of the most delicate, should never be omitted. It has, however, only a limited value, since other organic substances yield a similar reaction.

Among the many reagents for the precipitation of blood-pigment, tannin and zinc acetate are especially serviceable, since the hæmoglobine or hæmatine is not decomposed, and the presence of borax, or of the salts present in spring-water in the solution, does not affect the precipitation. The so-called hæmine crystals may be obtained from the above precipitate, or from dried blood, by allowing a little of it in a drop of glacial acetic acid, with a fragment of common salt, to evaporate to dryness at the ordinary temperature, or by warming to 60 or 80 deg. Cent. (140 to 176 deg. Fahr.) The latter method is not so certain, and the test requires some practice to ensure success.

After an examination of the spots themselves, when the quantity at disposal is only small, it is advisable to remove particles of dried blood, when possible, with a knife, reserving the dried blood for further examination, and to apply the tests to the scraped spot in the following order. One spot may suffice for several reactions.

1. The guaiacum test. A small piece of filter-paper is moistened with distilled water, laid upon the spot, and frequently pressed down with a glass rod. After from five to thirty minutes, it is removed and moistened with oil of turpentine which has been exposed for some time to the action of the air, and fresh tincture of guaiacum. The blue coloration must make its appearance within a few minutes. If the coloration do not make its appearance, it will scarcely be possible to detect blood by any other test. An affirmative reaction does not, however, necessarily prove the presence of blood.

2. Another, or the same, spot is macerated with a drachm or so of a cold saturated solution of borax, either at the ordinary temperature, or at 40 deg. Cent. (104 deg. Fahr.). The solution gradually assumes a red or reddish-brown color, if blood be present. In this case, it must be examined with the spectroscope for oxyhæmoglobine. It has been urged against this test, that other solutions, such as certain red inks made from cochineal, a coloring matter in the feathers of the banana-eater, and purpurine-sulphuric acid, may show similar spectra. The first may be recognised by their being decolorised by chlorine water without producing a precipitate. The second does not yield the spectrum of reduced hæmoglobine. To obtain this from oxyhæmoglobine, treatment with a solution (1 to 5) of sodium sulphide is recommended. The last, purpurine-sulphuric acid, only yields a spectrum when the solution is hot.

3. If the spectroscopic test succeed, the guaiacum test may be repeated with a small quantity of the solution.

4. The solution is diluted with 5 to 6 volumes of distilled water, and a 5 per cent. solution of zinc acetate added as long as a precipitate forms. This is filtered off and washed slightly. This precipitate, dissolved whilst moist in about 20 drops of glacial acetic acid, shows the hæmatine spectrum, if sufficient blood be present.

5. A small portion of the precipitate may be dissolved on a slide in a drop of glacial acetic acid, a very small crystal of common salt added, and allowed to dry slowly by exposure to the air. The slide may then be examined microscopically for hæmine crystals.

6. If any dried blood have been scraped from the spot, a few fragments may be used

for the hæmine crystals, as under 5. After recognising these, the slide may be washed with a little water, and the guaiacum test tried.

Finally, the remainder may be incinerated, and the ash tested for iron. If plenty of the material be at disposal, nitrogen may be detected by the usual methods; but, if the spots be upon iron, it must be borne in mind that iron-rust may absorb ammonia and so yield the nitrogen test. Wool, silk, hair, etc., can also be sources of error. The detection of blood upon rusty iron is difficult, from the fact that the blood-pigment forms a compound with the iron-rust which is not readily soluble. Borax solution at 50 deg. Cent. (122 Fahr.) removes hæmoglobine from this compound. The solution thus obtained may be examined as above described; or the rust may be treated with warm acetic acid, and examined spectroscopically for hæmatine.

To ascertain the source of the blood, the following methods are servicable:

7. If the blood be fresh, the size and shape of the corpuscles may be of service, since they differ, though not very greatly, in different animals; but, in partially decomposed, and in dried blood, the corpuscles are generally so much altered as to render the examination difficult, and the results unreliable. A thin fragment scraped from a blood-stain may be examined in turpentine under the microscope, or soaked in solutions which either do not at all, or only slightly, attack the corpuscles. After removing the hæmoglobine as far as possible with such solutions, the residue may be tested with an aqueous solution of iodine. The blood-fibrine which is undissolved absorbs iodine and renders itself thus evident. Proof of the presence of fibrine may be of importance, since its complete absence would indicate the use of a defibrinated blood, perhaps to simulate a crime.

8. Possibly hairs, fish-scales, etc., imbedded in the blood, may indicate its origin. Often, too, the dried blood, warmed with a little dilute sulphuric acid, evolves an odor peculiar to the animal from which the blood was derived.

9. Blood from the stomach, etc., frequently contains epithelium-cells and sarcinæ; that from abscesses, fat, pus-corpuscles, and cholesterine. In cases of alleged defloration, epithelium-cells and spermatozoa should be searched for.

10. Bug and flea spots differ in appearance. The residue is free from fibrine and from blood-corpuscles.

The exact determination of the age of a blood-stain is not possible. The older the stain, the more difficult it is to extract the hæmoglobine. An aqueous solution (1 in 130) of arsenious acid dissolves a spot one or two days old in the course of about fifteen minutes; one eight days old, in about half an hour; after two or three weeks, in one to two hours; after four to six months, in three or four hours; and after a year, in four to eight hours.

Solution of borax is recommended for the extraction of blood from earth, etc. Such a solution may be examined spectroscopically, and 0.5 per cent. of blood may be thus detected.

Highly diluted blood, such as, for instance, soapy or spring water containing small quantities of it, may be precipitated with zinc acetate. One part of blood in 6,000 parts of water can be easily detected; but the limit in urine is 1 in 1,000, and certain constituents of the urine render the detection more difficult.

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Mental Diseases.

Criminal Insanity—Treatment.—The results of the English experience in the treatment of these cases the *Boston Medical and Surgical Journal* states thus:

(1.) The expense of caring for the criminal insane must be at least double that for the other insane, although a great deal of work can be expected of both classes.

(2.) Male convicts becoming insane while serving sentence are kept in prison, as a rule, until their term of punishment is nearly over, partly because Broadmoor is so full that new buildings would need to be put up for them if they were sent there, and partly because it is thought desirable to keep them where the life is most like punishment, and to prevent as far as possible attempts at simulation.

(3.) The criminal insane are transferred from the criminal asylum to the lunatic hospitals as soon as their condition justifies the change.

(4.) In round numbers, in 1879, twenty of the criminal insane per million of the population were confined in the criminal asylum, twelve in lunatic hospitals, in prisons ten (on the supposition that the 294 cases of insanity represent about 260 persons.)

(5.) The number of the criminal insane really cured or curable is so small (not over six per cent., counting relapses and recurrent attacks) that the protection of society is the chief thing demanded in their treatment.

(6.) Provision for their confinement is of three kinds: in the prisons, chiefly in special cells or rooms; in an asylum as secure in all respects as a prison but entirely remote from one, and in the ordinary insane asylums.

Naso-Pharyngology.

Is Chronic Nasal Catarrh Curable?—Dr. Thomas F. Rumbold (*St. Louis Med. Jour.*, May, '82) answers this inquiry thus:

Up to the tenth year all patients will recover upon the observance of hygienic laws and with constitutional and medical treatment of the simplest kind. Those from about twelve to twenty years of age will require more thorough treatment, but every uncomplicated case can be cured in time. A little less than a majority of those patients from about the twenty fifth to the thirty-fifth year, can, by close attention to all the hygienic laws and careful non-irritating medical treatment, be cured, while the great majority of this class and all who are older, because of the permanency of the inflammatory action, and because of complication of other important organs, can be benefited only, and even this beneficial treatment must be made at each change of the season during life.

In conclusion, I will say, that the successful treatment of every patient may be likened to the successful suspension of a chain; if any one of its links are broken the chain drops. It may be said that one of the links dependant upon the successful treatment of this disease, is called protection of the head, neck, body and extremities: another link, danger of exposure to draughts and night air; another, maintenance of the nasal and aural passages in a clean condition, if catarrhal secretion is profuse; another, abstinence from the use of tobacco and spirituous drinks, and so on, through the whole list of hygienic and sanative measures, and the last and the least link called therapeutic measures. Now if any one of these links is broken—it makes but little difference which it is—success will not follow the treatment of such a patient.

Nervous Diseases.

Simulation of Insanity by the Insane—Dr. Jas. G. Kiernan (*Alienist and Neurologist*, April, 1882,) concludes an interesting discussion thus:

1st. The insane can, and do feign insanity for a purpose.

2nd. That the types of insanity so doing are, as a rule, those in which there is a strong hereditary taint. There may be a slight degree of dementia, but this can not be extreme.

3rd. The type of insanity most likely to simulate insanity is the primäre verrucktheit of the German, the manie raissonnante of the French, the imbecility of the first grade of Ray and Nichols, the monomania of Spitzka, the chronic intellectual mania, or chronic mania, without incoherence, of asylum reports.

4th. The insane may feign insanity when accused of crime, and a new complication thereby enters into the question of diagnosis. It may be of interest here to note that Dr. Ray's theory that Hamlet was an insane man feigning insanity, will better explain the psychological problem presented in this play than any theory yet suggested.

Percussion as a Therapeutic Agent in Nervous Diseases.—Dr. J. M. Granville (*British Medical Journal*, March 11, 1882) gives as the result of long experience and careful study of this subject:

1. I have rarely failed, in a fairly large number of cases—many of them of several years' standing—to bring the cerebro-spinal and, sometimes directly, at others in secondary circuits, the sympathetic, ganglia under control, by the application of my percuteur over, or in mechanical relation through the adjacent tissues with, those ganglia.

2. I have in no instance failed to produce activity of the bowels, even in cases of previously obstinate constipation; and in many instances I have succeeded, within a short period, in restoring the periodic evacuation of their contents without recourse to drugs. This success alone places the method on a footing of value in daily practice.

3. I can now, in result of my more recent experiments, propagate the vibrations I produce along the trunks and into the branches of most of the principal nerves, from their centers of origin, or call them into action, reflexly, through the afferent nerves connected with those centres. In limited paralyses, and even in circumscribed scleroses, this power is of the highest therapeutic importance.

4. I can nearly always arouse torpid centres to action, and thus pave the way for their restoration to states of normal activity. Since it is physiologically certain that nutrition depends on exercise, and every part of the organism feeds in proportion as it works

healthily, it is a great thing to be able to act thus directly on the nerve-centres which are the seats of energy.

5. I can subdue the exaggerated reflex irritability of revolting subordinate centres, and replace them under the control of the higher centres, even in cases of lateral sclerosis.

Applying these facts—for such they undoubtedly are—to the needs of special nervous states, the practitioner will have no difficulty in perceiving that my method has great and obvious uses. I am anxious not to overstate the results I am obtaining, but they are such as to show that the physiological process of mechanical vibration is likely to prove a potent agent in the treatment of a wide range of maladies now the most intractable. It will afford me much pleasure to show the process to any medical man who will call on me. It is impossible at present to describe its details in writing; but I will gladly aid anyone in its application. My method has nothing in common with the "muscle-beating" and shaking to which you directed attention in your last issue. It is a system which must be approved and practiced by the profession exclusively. Nothing do I so much dread as its falling into unprofessional hands. I have been engaged upon it since 1862, shortly after which date some of the first results were communicated to the Obstetrical Society.

Obstetrics.

MECHANISM OF FORCEPS LABOR AND THE PRINCIPLES OF FORCEPS CONSTRUCTION.—Dr. W. H. Studley, of New York, advances the view, in the *American Journal of the Medical Sciences* for January, 1882, that the doctrine generally taught that the fœtal head enters the superior strait in a direction corresponding to a line drawn perpendicular to its plane is erroneous; and the evil influence which this view has exerted on the manipulation of the obstetric forceps has resulted often in most disastrous consequences. Dr. Studley believes that the head does not enter the superior strait in a line with its axis, but in one that cuts it at quite an angle, and that the general pelvic axis is a line departing from the axis of the superior strait in a posterior direction instead of an anterior one, and that therefore the practice hitherto followed of varying the handle pubic-wards from the moment the head enters the pelvic excavation until its exit, is one which not only materially frustrates the accoucheur's efforts, but endangers the mother and child. According to Dr. Studley, traction should be made in a direction fifteen to twenty degrees posterior to the axis of the superior strait until the pelvic floor is reached, and in no wise should the tractions be varied in a direction anterior to that axis until extension of the head shows that the pelvic floor has been reached. This part of forceps-labor, Dr. Studley thinks, is attended with as many if not more difficulties and dangers than that which brings the head from the superior strait to the bony pelvic floor; and, singular as it may seem, he regards these dangers and difficulties as lying in an exactly opposite direction to that usually urged by the books and teachers. The anxiety hitherto manifested has been in regard to the danger threatening the integrity of the perineum by making tractions in the perineal direction. To avoid this, a strenuous warning has been urged to elevate the handles too early rather than too late; and the result has been in but too many instances that the head has been turned out by a prying lever process, inflicting not only perineal laceration—just the danger sought to be avoided—but contused wounds of the pubic arcade which has served as a fulcrum for the forceps shanks, and cuts of the vagina, and in some instances of the ischio and pubio-coccygeus muscles, by the posterior end edges of the blades. If the forceps have well-fitting blades, and the head is snugly held by them, it is easy to see how, by such a manœuvre, the top of the occiput is made to hitch under and against the pubic arch as a pivotal point, and the forehead and the face to forcibly sweep out by a long radius against all of the soft parts anterior to the coccyx.

Dr. Studley also describes an obstetric forceps made after his own design, which is somewhat similar to Tarnier's in that he has borrowed from Tarnier the perineal curve and binding bar, yet their action is based on entirely different principles.

IS CONCEPTION POSSIBLE AFTER DOUBLE OVARIOTOMY?—Dr. Boisliniere (*St. Louis Courier of Med.*, April, '82) says that he knew of three cases where conception and safe delivery had occurred after double ovariotomy. The Fallopian tubes, or one of them, may remain after the operation, and may be connected with a portion of the ovarian stroma also remaining, so that ovulation and menstruation may continue. It is said that each ovary contains 350,000 Graafian vesicles capable of becoming impregnated when they come to maturity, so that a woman with both ovaries contains enough possibilities to populate a city larger than this. It is not only the stroma that contains ova but the ovigenic layer surrounding the stroma, and a part of this layer might be left after the operation of double ovariotomy and the Graafian vesicles find their way thence into the Fallopian tube. Dr. Maughs had stated that he did not believe that he had removed all the ovarian tissue in his cases, and it was quite possible that Dr. Engelmann had not removed all the tissue, as he scooped it out with his hand. Then there was always the possibility of the presence of supernumerary ovaries. Of course if the Fallopian tubes were all removed entire, there would be no opportunity for the ova to enter the uterus and conception would be impossible, unless the spermatozoids had reached the ovary through the duct of Gartner—this duct is always found in the sow, and occasionally in the human female.

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Ophthalmology.

THE IRIS AND ITS INFLAMMATIONS.—J. Michel (*Archiv. für Oph.*, *Lond. Med. Record*), says that there is no longer any doubt that the anterior surface of the iris has an epithelioid covering. In the stroma of the iris are three kinds of cells: 1, spindle-shaped and star-shaped cells; 2, flat cells; 3, lymphoid cells. The iris is enclosed between two bounding membranes, viz., anteriorly, a delicate epithelial layer, which extends from the ciliary attachment of the iris to its pupillary border; posteriorly, a membrane composed of definite cell-elements, which carries on its hinder surface a layer of pigment. Between these two bounding membranes are two internal layers: (*a*), the reticular layer, composed of anastomosing cells, with interspersed lymph-corpuscles, not unlike the reticular structure of a lymphatic gland; and (*b*), the vascular layer, composed of trabeculæ of connective tissue, which carry vessels and nerves. These trabeculæ have a radial arrangement on the whole. On them are seen lying flat cells, either isolated or in groups. The structure of this vascular layer of the iris is not unlike 'the cavernous beam-work' which Sattler has described in the choroid of birds.

At the position of the sphincter pupillæ all the above layers are represented, but the reticular and vascular layer are much diminished in thickness. The development of the sphincter-part of the iris takes place very early in fœtal life; that of the ciliary part begins about the end of the sixth month.

The pupillary membrane is a thin lamina provided with nuclei, epithelial cells, and vessels. The iris develops behind this membrane. At the disruption of the membrane, which takes place in a peculiar manner about the seventh month, its remains constitute the epithelioid covering of the anterior surface of the iris. Early in fœtal life there are at the posterior surface of the iris, three layers, in the following order, from behind forwards: (*a*), pars ciliaris retinæ; (*b*), pigment-layer; (*c*), the bounding membrane. Of these, the pars ciliaris becomes pigmented, and coalesces with *b*. At no period of fœtal life are elements to be seen on any part of the posterior boundary of the iris which can be regarded as unstriped muscular fibres.

In *acute iritis* excited in rabbits by the injection of ¼ to ½ per cent. solutions of nitrate of silver into the anterior chamber, there are found, microscopically, upraising of the epithelioid covering of the anterior surface of the iris by a fibro-purulent deposit beneath it, fibro-purulent masses in the anterior chamber, general swelling of the iris, extravasations, and occlusion of the pupil. After infection of rabbits with tubercle, the epithelioid covering of the iris is found raised by tubercles; there is general proliferation of the epithelioid elements of the iris, and deposition of tubercles in the ciliary processes. Human irides were examined after removal by iridectomy, with the following results:

1. *In acute purulent iritis*, there are found detachment of the epithelioid covering of the anterior surface of the iris, with laceration and curling up of this membrane; extensive fibrino-purulent effusion into the anterior and posterior chambers, in the pupillary area, and between the epithelioid and reticular layers of the iris, and extravasations into its tissue; partial plugging of the arteries by fibrinous masses (in metastatic cases, thrombi containing bacteria), general infiltration and swelling. These results correspond closely with those mentioned above, obtained in artificially excited iritis in rabbits.

2. *Chronic Inflammation of the iris.*—Syphilitic iritis is to be regarded as primarily an endarteritis of the small vessels; there is, secondarily, formation of nodules (gummata); later, there is a general proliferation of epithelioid elements throughout the tissue of the iris. These nodules are frequently invisible to the naked eye.

In tubercular iritis, also, nodules are found.

Here they are seated on the vessels at one side, not embracing them, as in the syphilitic form; they are composed of epithelioid elements, which, at the periphery of the nodule, have a concentric arrangement; near the centre, a radial one.

In leucæmic iritis there are nodules between the posterior bounding membrane of the iris and the vascular layer. They consist of lymphoid and epithelioid elements, without discernible intercellular substance. The posterior bounding membrane itself shows an increased number of the oval nuclei, and a thickening of the pigment-layer; in some of the nodules, a new formation of vessels takes place. The vessels of the iris generally have their circumvascular sheaths distended with lymphoid cells.

In chronic iritis, secondary to keratitis punctata, there is a great increase of lymphoid cells in the vascular sheaths and tissues of the iris in general. The pressure upon the vessels, caused by this increased number of cells, and consequent congestion, possibly accounts for the visible vessels on the iris during life in this disease.

In cyclitis after wounds or operations, are found changes in the endothelial covering of the iris, proliferation of the nuclei in, and hyaline thickening of, this membrane, and occasionally upheaving of it by extravasation. The iris is infiltrated with round cells, and there are groups of wandering cells in the neighborhood of the vessels. The vessels show an increase in the connective tissue of the adventitia, and a proliferation of the cells of the intima. The posterior chamber is filled with granulation tissue, which extends over the pupillary arcs. The thickened vessels do not show the amyloid reaction.

In a case of 'pseudo-leukæmia,' the changes were found in the reticular layer of the iris; here there were nodules composed of spindle-cells, and newly formed lymphoid and epithelioid elements.

3. In primary glaucoma are found extravasations, extreme congestion of veins, especially in the sphincter part of the iris, and a general increase of lymphoid cells in the vascular layer. Possibly this collection of cells in the sphincter part may oppose some obstacle to the action of the sphincter, and so account for its loss of function in glaucoma. [This may be compared with Dr. Brailey's observation that the inflammation in the ciliary body in the early stage of glaucoma is principally in and around the fibres of the ciliary muscle. —*Ophth. Hos. Rep.*, vol. x, part 2, p. 282.—*Rep.*]

4. In secondary glaucoma there are adhesion of the periphery of the iris with the cornea, thickening of the whole anterior surface of the iris, and new formation of vessels under the epithelium; the posterior bounding membrane is sometimes thrown into folds, and the pupillary margin is in a state of ectropion. This condition may be explained in the following way. From the place of adhesion of the periphery of the iris to the cornea, a centrifugal pull is exerted on the iris; this causes mydriasis, throws the iris into folds, brings about ectropion of the pupillary margin, and at the place where this ectropion takes place, tends to bring the posterior surface of the iris into contact with the anterior lens capsule, and so cause posterior synechia. This latter result will ensue all the more easily, as in some cases of increased tension, the lens is nearer the posterior surface of the iris than usual. [The author appears to imagine that the 'centrifugal pull' causes an arching of the iris with the concavity forwards, just as the contraction of scar-tissue in the skin of the eyelid causes arching of the lid and ectropion. Even if it be conceded that such a pull is exerted on the iris, it is very doubtful if it would have the arching effect here attributed to it. A large series of specimens in the Moorfields Museum, which the reporter has the opportunity of examining by the kindness of Dr. Brailey, show no trace of any such arching.—*Rep.*]

5. In prolapse of the iris its tissues undergo the same changes as in secondary glaucoma; in extreme cases, nothing is left of the iris but a thickened epithelioid layer and pigment

6. In congenital buphthalmos the thickness of the iris is much reduced. Its ciliary part undergoes a change of position through the adhesion of the posterior surface of the iris to the underlying ciliary process; this causes a retraction of the periphery of the iris, and a distinct bending of the vessels.

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Pathology.

INFLAMMATORY ENLARGEMENT OF BONE. —Dr. C. J. Symonds, *London Lancet*, holds on the above subject these views:

1. That ostitis, even when central, is only attended with enlargement when the periosteum is involved.

2. That in all cases of primary synovial disease of joints, or of caries of articular sur-

faces with secondary synovial disease, there is no enlargement of the bone.

3. That the enlargement of joint-ends in these cases is only apparent, and is explained by the unnatural prominence of the femoral condyles, owing to wasting of the thigh and to the thickening of the ligaments and synovial membrane.

4. That all inflammatory increase in the size of bones is due to periosteal formation, and that the uniformly cancellated appearance is due (*a*) to the widening from absorption of the spaces in the compact layer, whereby it becomes indistinguishable from the original cancellous tissue and the porous periosteal bone; and (*b*) to the remodelling of the compact layer when the ostitis has been superficial.

5. That the term "expansion" is misleading as applied to the result of the inflammatory processes in bone, since the widening of the spaces is an absorptive one.

CONTAGIUM; CONTRIBUTION TO ITS LIFE HISTORY. — Drs. Braidwood and Vacher (*British Med. Jour.*, Feb. 25, '82) conclude a series of papers, in which they develop the experiments they made under the aid of the association, as follows:

Starting with the threefold inquiry—1. What is contagium? 2. In what manner is it generated or communicated? 3. What are the conditions on which its life or activity depend?—we endeavored, by means of that typical contagium, vaccine lymph, to obtain positive replies. As regards the nature of the vaccine contagium, our experiments confirmed the conclusions previously arrived at by M. Chauveau and Dr. Burdon Sanderson, and added thereto: From our researches on measles, it would appear that the contagium of this affection also is associated with albuminoid particles. Then, by careful microscopical investigation of the changes induced in the tissues by the contagium of vaccinia, variola, scarlatina, measles, and septicæmia, as seen in preparations removed from the living subject and after death, we have been able to demonstrate and delineate structural changes effected. We have further shown that, in vaccinia, the contagium particles, when in contact with the cellular elements, propagate by a process of germination. Thus have they obtained partial answer to the first and second inquiries. Again, by inoculating animals with a healthy human secretion, we have obtained pathological appearances resembling those of septicæmia in man. Perhaps the most practical part of our research refers to the conditions influencing the life or activity of contagium—how it is affected by heat, cold, desiccation, dilution, and exposure to certain gases, vapors, liquids, and solids. We have abundant evidence that this portion of our labors has proved useful to many. We appreciate, also, the opportunity afforded us, in our brief *résumés*, of giving the profession, in a concise form, the views and results of other observers.

ABSCESS OF BRAIN FROM DISEASE OF THE EAR.—Mr. A. O. Holbecke (*British Medical Journal*, March 4, 1882) before the Midland Medical Society showed the left hemisphere of the brain of a child aged eight years, exhibiting a large abscess cavity, from which about half a pint of the most offensive pus had escaped. On making the post mortem examination, a small round perforation in the petrous portion of the temporal bone was found, which communicated with the ear on the one hand, and the abscess cavity on the other. The dura mater was healthy. Thirteen weeks before death, the child received a blow on the ear, and complained of much pain at the time. Subsequently, her health became impaired, and a discharge of pus from the left ear appeared, the pain in the head becoming relieved. Several times the discharge disappeared, the pain in the head being always simultaneously increased. There was no paralysis. Convulsions had occasionally occurred. She was rational, and answered questions intelligently. Twelve hours before death, the discharge from the ear ceased, and she at once became comatose and died.

PYÆMIA FROM OTITIS.—At a recent meeting of the Pathological Society of Dublin, Dr. Walter Smith (*British Medical Journal*) showed the left petrous bone, cerebellum, and lungs of a young man of 21, who had enjoyed good health until December 23d, 1881, when severe pain suddenly set in in the left ear and left side of head. Next day there were rigors, sweating, and vomiting. Was admitted into hospital January 1st. There was no history of any discharge from either of his ears. The temperature ran a completely typical course—on one occasion it fell to 96.7°, on another it rose to 107.4°. There was a similar want of accordance between the pulse and respiration records. There was complete absence of any paralytic symptoms, general or special. The sputum was rusty and streaked with blood, but physical signs of pneumonia were not discovered until January 9th. The cerebral symptoms then became latent. Examination revealed bulging of left membrana tympani, but there was no perforation or otorrhœa. After increasing dyspnœa, death ensued on January 15. Spleen was found large and pulpy, weighing ten ounces and a half. There was some left pleural effusion; foci of embolic pneumonia were found in the left lung. The right lung was tough, non-crepitant, and in places quite gangrenous, with several softening, embolic pneumonic patches. Necrosis of the pleura was well marked on the surface of the lung. A small, greenish abscess was observed in the cerebellum, below the left corner of the pons varolii. A thrombus lay in the left lateral and superior petrosal sinuses. The left petrous bone was diseased and very fetid. The cavity of the tympanum was full of brown, grumous stuff, and its roof was broken down and perforated.

KOCH'S INVESTIGATIONS ON TUBERCULOSIS.—These are condensed (*British Medical Journal*, May 13, 1882), thus:

Experiments which have been carried on during the last few years have demonstrated beyond a doubt that tuberculosis belongs to the group of infective diseases, although various questions have arisen as to the origin of a similar disease from inoculation with non-tubercular matter. Many of these difficulties have been cleared up, and a great advance has been made in the pathology of this subject, by the beautiful experiments recently published by Dr. Koch. Starting from the point of view that the infective nature of the disease has been demonstrated, and with the knowledge that all the infective diseases at present thoroughly investigated have as their cause some form of micro-organism, Dr. Koch has studied tuberculosis in man and in animals, both spontaneously occurring and artificially produced, according to the methods described in our last article.

The first point was to ascertain whether any micro-organisms were present in the body of men and animals which had died of tuberculosis, and whether, if present, they were always of the same kind, and had definite characteristics distinguishing them from other forms. For a long time these attempts failed; but, by a special method of preparation, the difficulties were at length overcome, and a bacillus was found, of definite form, and with certain very characteristic peculiarities. One cubic centimetre of a concentrated alcoholic solution of methylen blue is mixed with 200 cubic centimeters of distilled water; to this is added two cubic centimeters of a ten per cent. solution of caustic potash, the fluid being well shaken. The material to be stained is kept in this solution for from twenty to twenty-four hours, or, if at the temperature of 40° Cent. (104° Fahr.), for a half to one hour. The cover-glass on which broken down portions of tubercle have been dried, and then placed for two minutes in a filtered concentrated watery solution of vesuvin. As a result, the methylen blue is displaced by the vesuvin from everything but the tubercle-bacilli; so that, after washing in distilled water, the bacilli stand out as blue rods on a brown ground. Sections are treated similarly; after having lain for twenty-four hours in the methylen blue, they are transferred to the filtered concentrated watery solution of vesuvin for fifteen to twenty minutes, then they are placed in distilled water till no more of the stain comes out, and afterwards in alcohol, oil of cloves, and Canada balsam. Here, also, the nuclei are stained brown, while the tubercle bacilli appear as delicate blue rods. All the other forms of bacteria which Dr. Koch has as yet examined in this way are stained brown, with the exception of the bacilli found in leprosy, which also retain the methylen blue in preference to the vesuvin. These bacilli may also be stained by other aniline dyes if the solution be made alkaline by the addition of caustic potash or soda. The bacilli found in this way are delicate rods from a quarter to a half the diameter of a blood-corpuscle in length. They are present in large numbers in all places where the tubercles are of recent formation and spreading rapidly, more especially at the border of the cheesy masses. They possess a special relation to the giant-cells, being found in their interior sometimes to the number of twenty in each cell. In old tubercles, there are fewer bacilli, though they are seldom altogether absent, unless where the tuberculous process has come entirely to a standstill.

It might be objected that these appearances have, in some way or other, resulted from the staining process employed; but Koch states that the bacilli may be seen without being stained at all. For this purpose, a portion of tubercle containing these bacilli may be examined in blood-serum or distilled water in a hollow slide, when the bacilli will be found as delicate rods which do not possess any power of movement. In some of the rods seen in sections, spore-formation may be observed, the spores being of oval form. Dr. Koch has examined the following cases in man: Eleven cases of miliary tuberculosis, twelve cases of cheesy bronchopneumonia, one case of tubercle in the brain as large as a hazel-nut, and two cases of intestinal tuberculosis; in all of these, bacilli were present. Three cases of freshly extirpated scrofulous glands were examined; in two of which bacilli were found enclosed in giant-cells; and in two out of four cases of synovial degeneration of joints they were present in small numbers in giant-cells. Among the lower animals, ten cases of *perlsucht* were investigated, also three cases of so-called bronchiectasis in cattle, a cheesy gland in a pig, a tubercular hen, three monkeys which died of spontaneous tuberculosis, nine guinea-pigs and seven rabbits which had spontaneous tuberculosis, and 172 guinea-pigs, 32 rabbits, and 5 cats which had been infected with the disease; in all of these, the tubercle-bacilli were found. The constant presence of a distinct form of organism in a distinct pathological process was thus demonstrated, but it did not, therefore, follow that this organism was the cause of the pathological process.

An important point now arose, viz., whether the disease which followed the inoculation of material containing living bacilli was produced by that inoculation, or was due to accidental causes. The following points indicate that it did not arise spontaneously. In spontaneous tuberculosis, such a plentiful crop of tubercles never develops in so short a time as in those cases where inoculation was performed; secondly, control animals which were treated in the same way as the inoculated animals, with the one exception that no material containing these living bacilli was introduced into them, did not become tuberculous; further, in spontoneous tuberculosis, the bronchial glands become enlarged and cheesy, and then the lung is affected. In these cases, where inoculation was performed generally on the abdomen, the nearest lymphatic glands, viz., the inguinal, and at times the axillary, became first enlarged, and the spleen and liver were specially affected.

That the material which produced this infection must contain living bacilli for a successful result — that, in other words, the bacilli stood in relation to the result of the inoculation as cause to effect—was rendered probable by the following fact. In all cases where the material used for inoculation contained living bacilli or spores, the result was positive in animals liable to infection; while, where the material inoculated did not contain these bacilli or spores, a negative result was obtained, the animal remaining healthy. Thus, in several cases, experiments were performed with the contents of a scrofulous gland, and with degenerated synovial membrane, neither material containing bacilli; and also with the tubercular lungs of a monkey, some parts of which had been dried for two months, and some kept one month in alcohol, and in no instance did tuberculosis follow.

In order to prove that the bacilli were the real and only cause of the infection, it was necessary, however, to separate them from the tuberculous material, and introduce them alone into the animal. This was done in the manner indicated in our last article, by growing them on a solid substratum. It was found that these bacilli required a temperature approaching that of the human body for their growth. Now, at that temperature, the gelatine cultivating preparations became fluid, and thus the advantages of solidity were lost, while it was also found that these bacilli grew in fluids only with the greatest difficulty. The material which Koch had found best for the present purpose is blood-serum which has been rendered solid by heat, but which has not been exposed to so high a temperature as to become opaque. If blood-serum be exposed for an hour daily to a temperature of 58° Cent. (136.4° Fahr.) for several days in succession, it is generally thoroughly sterilized; then, by keeping it for some hours at 65° Cent. (149° Fahr.), it becomes solid without losing its transparency. Portions of tubercles removed from the body, with various precautions to prevent the access of extraneous organisms, are placed on the surface of this material, and the vessel kept in an incubator at a temperature of 40° Cent. (104° Fahr.) The following phenomena occurred, whether the tuberculous material was taken from animals which had been killed after infection of tubercle, from animals which had died from spontaneous tuberculosis, or from human beings which had died of tuberculosis. For a week, there was no marked alteration; if marked development occurred within that time, it was always due to extraneous bacteria, and the experiment had failed. About the tenth day, small points and scales became evident, which slowly spread, aud were seen to consist of tubercle-bacilli. After about fourteen days, these bacilli were transferred to fresh blood-serum.

In doing this, the scales were broken up as much as possible, and a minute portion transferred to a new flask. When the transference had taken place several times, the original material was entirely got rid of, and only the bacilli developed from it remained. Now, inoculation of these bacilli, isolated in this way from all the other original material, produced tuberculosis with the same certainty as did the inoculation of tuberculous material containing living bacilli. The substance inoculated was generally introduced beneath the skin of the abdomen, or into the anterior chamber of the eye; and the bacilli had been cultivated in four to ten or more different flasks. Without enumerating the experiments, we may give the first as an example. Of six newly bought guinea-pigs, four were inoculated under the skin of the abdomen with bacilli which had been obtained from the lung of a human being who had died of miliary tuberculosis; these bacilli had been grown for fifty-four days, during which time five successive cultivations had been carried out. Two of the guinea-pigs were not inoculated. One of the inoculated animals died on the thirty-second day, and all the rest were killed on the thirty-fifth day. All those which had been inoculated showed extensive tuberculosis in the various organs, while those which had not been inoculated remained healthy. A number of experiments carried out in this way, and several in which the bacilli were injected into the abdominal cavity, yielded results absolutely identical with those which followed the introduction of tuberculous material containing living tubercle bacilli.

Similar results followed the introduction of bacilli into the anterior chamber of the eye. Thus, to mention one experiment, four rabbits were taken; into the eye of the first, pure blood-serum was injected; into the second was introduced the point of a syringe filled with blood-serum containing bacilli obtained from tuberculosis in a monkey, and cultivated for 132 days; but the piston was not moved, and thus no injection was made (this was an inoculation properly so-called), while this serum with bacilli was injected into the eyes of the third and fourth rabbits. All the animals were killed on the thirtieth day. The first rabbit was healthy; the third and fourth had iritis, panophthalmitis, emaciation, and numerous tubercles in the lungs; the second had typical tuberculosis of the iris, the lymphatic glands under the jaw and near the root of the ear were swollen and infiltrated with whitish yellow nodules, but the lungs and other organs were still free from tuberculosis. This experiment shows that the rapidity of development of the morbid process depends on the number of bacilli inoculated, as was also demonstrated by the fact that the development of tubercles was more rapid and more extensive when the material was introduced directly into the abdominal cavity or into the veins. Also, in the second rabbit, there was nothing introduced except a few bacilli or their spores adhering to the end of the syringe; the microscopic portion of material which produced the infection could not possibly contain any of the original tuberculous matter, seeing that the bacilli had been passed through at least ten different flasks. We have already stated that the tubercles produced in this way were similar to those arising spontaneously; and, on microscopical examination, the appearances as to character of cells, presence of bacilli, etc., were absolutely identified.

These investigations seem very definite, and only require careful confirmation to enable us to accept the matter as proven. That the facts are accurate and have been observed with scrupulous care, all who are acquainted with Dr. Koch and his work will admit; and Koch does not seem to be going beyond a legitimate conclusion when he writes that it must be looked on as a great advance of knowledge "that, for the first time, the parasitic nature of a human infective disease, and, indeed, one of the most important of all diseases, has been completely demonstrated." As yet, the only disease in which so much and such convincing proof has been furnished is anthrax; though the presence of micro-organisms, which seem to stand to the morbid process in the relation of cause and effect, has been shown in a number of other affections. The questions which arise as to the relation of these organisms to the complex processes grouped together as phthisis, the views as to hereditary, infection, etc., are too numerous to enter upon in the present article.

Physiology.

THE PULSE RATE OF THE ISOLATED MAMMALIAN HEART—INFLUENCE UPON IT OF VARIATIONS OF ARTERIAL PRESSURE, OF VENOUS PRESSURE AND TEMPERATURE—In a late paper Dr. H. N. Martin (*Maryland Med. Jour.*, April, '82), describes some interesting physiological experiments as follows: A dog having been chloroformed, curarized, or placed under the influence of morphia is tracheotomized; then the common carotids are exposed in the neck, ligated and a cannula placed in the cardiac end of each vessel. Artificial respiration being started the thorax is opened and both subclavians tied. Next a wide cannula is inserted into the aorta just beyond its arch. After these procedures have been completed the coronary arteries of the heart are the only arteries of the systemic circulation which remain open. Brain, spinal cord, trunk and limbs are no longer supplied with blood and at once commence to die. The next steps are to ligate the inferior cava just above the diaphragm, the vena azygos near its junction with the superior cava and the latter vein below the point where the left innominate vein joins it. All systemic veins are thus closed except the coronary veins and the other small twigs from the heart itself opening into the right auricle. The pulmonary circulation is not interfered with at all. Heart and lungs are now the only parts of the body through which any circulation takes place.

A large cannula is now tied into the cardiac stump of the superior cava; this cannula is connected with a reservoir of (*a*) defibrinated dog's blood, (*b*) the same diluted with some 0.7 per cent. solution of pure sodium chloride in distilled water, or (*c*) with defibrinated calf's blood. The carotid cannulas being opened the blood in the heart and lungs (which would be apt to clot in a prolonged experiment) is washed out and replaced by defibrinated blood supplied from the reservoir connected with the superior cava. While this washing out is taking place a thermometer is introduced into the left subclavian and its bulb pushed down into the aortic arch: in this position the thermometer is firmly tied; it serves to give subsequently the temperature of the blood pumped by the left ventricle into the aorta and hence that of the blood circulating in the coronary arteries of the heart. The animal with its heart and lungs completely isolated in this manner is now transferred to a warm moist chamber kept at a temperature of about 38°C. The cannula in the superior cava is connected with a Marriott's flask filled with warm defibrinated blood (dog's, diluted with sodium chloride solution, or calf's) about four litres, and with this the heart is fed. Alongside this Marriott's flask is another quite like it, but empty. The wide aortic cannula is attached to a long rubber tube which extends through the roof of the moist chamber and whose distal end can be raised or lowered at will. These connections having been made, all clamps are removed and the heart taking blood from the full Marriott's flask under a known pressure, pumps it out by the tube connected with the aorta. This tube pours it into a funnel from which it is conducted to the empty Marriott's flask. As one supply flask empties, the other fills, and at the proper time, by turning a couple of stop cocks, the first flask is disconnected from the heart, and the other used to feed it; while the blood pumped out from the tube in the aorta is now diverted into the flask at first full but now empty. So on, from time to time during an experiment, as often as necessary, each of the two Marriott's flasks is made in turn feeding vessel and receiving vessel for the blood pumped round by the heart. Uniform artificial respiration is maintained by a small water engine. The carotid cannulas are connected with manometers which record pulse rate and arterial pressure on the paper of a kymograph. Under these conditions we can vary at will venous pressure or temperature, while keeping all other conditions affecting the heart constant. Raising the exit point of the tube in the aorta raises arterial pressure; raising the level of the supplying Marriott's flask raises venous pressure: and keeping these two constant we can warm or cool at will the blood circulating in the cardiac capillaries, and accurately learn its temperature by the thermometer whose bulb lies in the aortic arch.

Professor Martin then proceeded to give an account of his experiments in three cases, (1) in which aortic pressure was alone varied, venous pressure and temperature being kept constant; (2) in which venous pressure was alone varied, aortic pressure and temperature being kept constant; (3) in which temperature was alone varied, venous and aortic blood pressure being kept constant.

The isolated dog's heart being supplied with blood of constant composition and known temperature, and under a constant venous pressure from a Marriott's flask, artificial pressure was raised and lowered rapidly between the limits of 40 and 210 millimetres of mercury, by elevating and lowering the level of the opening through which the tube connected with the aorta pumped out the blood poured into it by the left ventricle. No observation was made until the animal had been at least half an hour in the warm chamber, by which time it was certain that the brain and spinal cord, deprived of blood for that period, were absolutely dead; and the rigor of the muscles of trunk and limbs, almost always very marked by that time, proved conclusively that all the body of the animal except heart and lungs, through which alone blood was flowing, was a dead, inert mass; by the ligature of the systemic arteries and veins above described, it was, at any rate, thrown entirely out of any possible connection with the heart.

The experiments, which were illustrated by charts giving curves which showed arterial pressure and pulse rate during their execution, proved decisively that variations of arterial pressure within those limits had no direct effect whatever upon the rate of beat of the heart. The average carotid pressure in dogs of the size used is 110 120 millimetres of mercury, so that the limits above mentioned include, on the one hand a pressure very nearly double the normal, and on the other one less than half the normal. Certain still higher pressures, produced not merely by raising the exit of the outflow tube, but by narrowing it also, do affect the heart's beat, but the author had not yet had opportunity to fully investigate this part of the question, which has special interest, as the conditions thus produced probably represent very closely those in the heart during a paroxysm of angina pectoris.

Professor Martin next described his experiments made on the isolated heart, exposed to variations of venous pressure, arterial resistance, and temperature being kept constant. The pressure under which blood was sent into the right auricle varied from that exerted by a column of defibrinated blood 7 centimetres in height to that due to a column of blood 38 centimetres in height. These variations were, of course, produced by raising or lowering the Marriott's flask connected with the right auricle. The results, which were expressed in a chart constructed from the tables of pulse rate and venous pressure, showed conclusively that changes in the latter had no direct influence on the rate of the heart beat.

Professor Martin next proceeded to describe a third series of experiments in which venous pressure and arterial pressure were kept constant, and the temperature of the blood sent through the isolated heart alone was varied. The temperature was measured by the thermometer in the aortic arch, and so was that of the blood flowing through the coronary arteries.

It had been already known that temperature changes very greatly influence the rate of beat of the isolated hearts of cold-blooded animals. From the slower beat of the heart of warm-blooded animals while hybernating and the quicker pulse of artificially warmed animals, as also the quick pulse of fever it has been assumed that this also was true of the mammalian heart. But so long as the heart is in physiological connection, through nerves and blood current with other parts of the body, such a belief is merely probably correct—its validity is not proven.

In the case of fever, for example, we now have much reason to believe that the dry skin and high temperature are both the results of nervous disturbances by which the temperature regulating mechanism is thrown out of working order. It might well be, therefore, that the quick pulse also was due to nerve changes extraneous to the heart—such as paralysis of the cardio-inhibitory centre, or excitation of the cardio-accelerator centre or both. This is, moreover, a case where experiments on cold-blood animals are least reliable, as bases of argument for mammalian physiology. Deductions made from the heart of the frog, an animal with no heart regulating mechanism, and never showing true fever, can only be applied with great reservation to the heart of the mammal. It is nevertheless of supreme importance to know just what does cause the quick pulse of the febrile state; one of whose dangers is that the overworked heart will give out before the fever has terminated. If the rapid pulse rate be determined by extrinsic nerve influences, or by poisons produced through abnormal nutritional conditions in various organs, and conveyed to the heart in the blood, we cannot *a priori* say that cooling the patient will slow its rhythm and ease the heart. But if it be proved that in an isolated mammalian heart kept under conditions where all but the the temperature of the blood flowing through it is unvaried, hotter blood causes quicker pulse and *vice versa*, we have a valuable indication that cooling of the patient as by carefully applied baths may save life in cases of fever where death is threatened by failure of the heart.

Professor Martin exhibited a chart illustrating by curves pulse rate and temperature during one experiment. Beginning with blood at 37°C this was gradually cooled to 30°C and then slowly warmed again. It was seen that every fall in temperature was accurately accompanied by a slowing of the pulse and every rise of temperature by a hastening of it.

RED BLOOD CORPUSCLES; THEIR ORIGIN AND FORMATION IN THE RED MARROW OF BONE. RESEARCHES OF M. MALASSEZ.—The following abstract of these is from the *British Medical Journal*, March 18, 1882:

In 1868, Neumann first drew attention to certain cells in the red marrow of bone, which he considered to be an intermediate form between white and red blood corpuscles. This new and important function of red marrow was recognized by Bizzozero, and afterwards by Rindfleisch. Notwithstanding the researches of these authorities, two important questions still remained unsolved; the origin of these cells, and the process by which they become red corpuscles. It is these two questions that M. Malassez has endeavored to settle in his *Mémoire sur l'Origine et la Formation des Globules Rouges dans la Moëlle des Os*, the result of researches carried on in the Histological Laboratory of the College de France, and published in the *Archives de Physiologie Normale et Pathologique*. His researches are confined to normal tissues; nevertheless, they open up new paths of inquiry in pathological anatomy, especially in that particular branch which treats of the sequelæ of serious bone affections in infancy.

The author reminds us that all those histologists who have studied the formation of red corpuscles without a nucleus at the expense of nucleated red corpuscles, have admitted that the phenomenon is a simple transformation due to the disappearance of the nucleus. There are many theories to explain this disappearance; among others Kolliker's, who says that the nucleus is slowly destroyed. Rindfleisch believes that the nucleus is expelled from the cell. M. Malassez shows that these two theories are untenable. With regard to the first, if the nucleated cells of a kid, the red corpuscles of which are very small, be examined, it is observed that they are 19.9 times smaller than the protoplastic masses of the hæmoglobic cells. The second theory is destroyed by the exact and carefully made observations of Abrastzon, who shows that the phenomenon of the nucleus leaving the cell is not physiological but physical, due to the action of reagents, to the changes that take place after death, and is analogous to the escape of the nucleus from the red corpuscle of the frog, under the influence of water. This theory receives another blow from the facts already mentioned concerning the blood of the kid; were it tenable, there ought to be present cells intermediate in bulk between the red nucleated cells and the red blood corpuscles, but no such intermediate bodies can be found.

Gemmation is all that remains to explain this formation. This theory M. Malassez brought forward in 1878, basing it on the following observations: There are present, in the splenic pulp, cells with little rounded projections of the same volume, if not of the same color, homogeneity and refraction, as the red corpuscles. The author was induced to consider these small projections, still attached to the mother-cell, as red corpuscles. In red marrow, the red corpuscles discovered by Neumann present similar formations. M. Malassez believes these splenic and medullary cells to be among the productive elements of blood corpuscles. This theory is not simply a modification of that of Rindfleisch, inasmuch as the formation of the red corpuscle results from a sort of secretion, and the mother-cell is not destroyed, but lives, and may be supposed to produce other red corpuscles.

In the red marrow of young kids are cells presenting the same aspect as those just described, the red corpuscles of which are very small, and yet each bears two or three projecting buds; whilst newly born infants and rabbits have much larger red corpuscles with only one bud, occupying a large area of the surface of the mother-cell.

These buds of protoplasm present all the different stages, from that of a simple projection to that of a distinct corpuscle attached to that of the mother-cell by a thin pedicle, and attaining a volume nearly equal to that of true blood corpuscles. They are not discoidal, but spheroidal. They resemble red corpuscles in their general aspect, their refractive power, and their color. M. Malassez thinks that these corpuscles, once detached from the mother-cell, become true discoidal red blood corpuscles in consequence of losing the water they contain, and the condensation of the medullary substance. He urges in support of this theory his personal observations, also the well known fact that red discoidal corpusles become spheroidal in the presence of water.

The author was unable to arrive at any final decision concerning the ultimate fate of these cells producing the red corpuscles, and prefers confessing his ignorance to building up hypotheses which would obscure the question rather than make it clearer. The seat of the cells with reference to the medullary vessels is also a point of interest which M. Malassez has failed to elucidate. Were it known, science would possess indications of the manner in which the newly formed corpuscles reach the circulation; though we are ignorant of this important and interesting detail, it is certain that these corpuscles contribute a part of the solid elements of the blood. Rindfleisch entertains very positive opinions on this subject. He believes that the capillaries of red marrow have no walls, excepting the cells among which they run, so that the young red corpuscle simply buds into the current of blood which breaks it off from the mother-cell. To carry on its important blood-forming function undisturbed, the marrow is protected from variations in blood pressure. A full notice of Rindfleisch's theories will be found in the *Journal*, vol. i, 1880, p. 789, the original contribution being in the *Archiv für Mikroskop. Anat.*, for the same year.

In the second part of his memoir, the author studies the origin of the mother-cells of red corpuscles. Here it is that the accumulation of important and interesting detail renders an analysis impossible; we therefore must rest content by noting a few of the most important conclusions, and referring those who wish to follow the author step by step to the memoir itself. M. Malassez rejects the theory of the transformation of ordinary white corpuscles into nucleated cells. Bizzozero, more emphatically than Neumann and Osler, also discards this hypothesis.

M. Malassez considers Pouchet's theory untenable, that the red cells of the red marrow have their origin in the medullary lymph-corpuscles, similar to those of the lymphatic vessels, not to those of the blood, and that their transformation is a process similar to that of pigmentary fatty degeneration. It is unnecessary to insist on the slender foundation on which this hypothesis rests. The presence of hæmoglobin in these elements does not indicate a degeneration, but a special function; neither do these cells disappear, as M. Pouchet has affirmed they are frequently observed segmented, a proof of reproductive vitality. The mother-cells of the red corpuscles multiply by segmentation, judging from the considerable number of segmented cells observed in red marrow. This mode of reproduction is very important. There is yet another process offering three types; the first is a cell with a very large diffused nucleus enclosed in a very small quantity of protoplasm; in the second, the cell, though smaller than the first, is of considerable volume, containg a single large spherical nucleus; in the third, the cells are composed of protoplasm containing a small quantity of hæmoglobin, and a gemmated nucleus arranged in a crown-like form. The study which M. Malassez has made of the medulla of bone, induces him to conclude that the three types described are the formative elements of the mother-cells.

He does not attribute to the red mother-cells here described the exclusive production of red corpuscles. These cells he has found in the spleen, and he believes them to exist in all the blood forming organs; he believes that the vaso-formative medullary cells also produce red corpuscles. Heitzmann has found these cells in inflamed bones. Bizzozero pointed them out in the normal medulla, and regarded them as cells destroying the red corpuscles; these cells are sometimes very large, and composed of a mass of protoplasmic matter, enclosing red corpuscles varying in number. They are isolated from the circulation, finally join it, and empty their contents of red corpuscles into the general mass of blood.

M. Malassez is of opinion that the vaso-formative medullary cells play a secondary part; the true red corpuscle producing cells are those described in the first instance; the others only take an important share in inflammation and allied pathological processes. M. Malassez and M. Monod have made some interesting researches on myeloid tumors; in the interior of these cells, they discovered cavities filled with blood, sometimes connected with the circulation, but generally unconnected. The researches of Lewischin, Wagner, König, etc., on the giant cells of tubercles, are of similar pathological value and interest.

It will be generally admitted that the important discoveries of Neumann and Bizzozero, confirmed by M. Malassez, throw not only a new light on the origin of the blood, but also on important pathological questions associated with bone diseases in childhood, and explain the dangers of the cachexia that too often follows these affections; likewise the extreme anæmia which often renders bone affections serious, when originally insignificant.

SMALL WAISTS IN WOMEN—THEIR RELATION TO THE DRAPERY OF DRESS.—Dr. Roberts (*British Medical Journal*, March 11, 1882) calls attention to this quotation thus:

In truth, small waists in draped figures are the result of the law of proportion, which is at the bottom of our sense of the beautiful, not only in the human form, but in all other objects. Professor Zeising, to whom we owe the discovery of this law, states it thus: "If the divisions of a whole (made up of unequal parts) appear proportional, the smaller part will bear the same relation to the larger that the larger does to the whole." Now the waist forms the division of the body which gives these proportions. Thus, if we take a well proportioned figure, and represent its total height by 1,000, we shall find the portion below the waist is represented by 618, and the portion above it by 382 parts; and 382 is to 618 what 618 is to 1,000. Zeising's law applies equally well to the hand, the head, the arm, and the leg; and, indeed, to all animate and inanimate objects which appear proportional to us. But in some nude figures, the proportional division is not at the waist, but at the knees. In the Venus de Medici, where the arms are folded across the body, this is the case; hence the charm of young girls with short skirts and no waists (and perhaps of men in frock coats). The shorter the skirts in children, the better the proportion appears; but as they grow up, and their skirts are lengthened, a new division line becomes necessary, and the waist is constricted accordingly. The dress reformers should, therefore, bear in mind that dressing is the instinct of decorating the body, and that a small waist is the result of a law of nature; but within these limits there is ample room for their efforts for improvement; many dresses are fantastic and in bad taste, and most waists are constricted too much even from an æsthetical point of view.

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Practical Medicine.

RECTAL ALIMENTATION.—Dr. W. J. Tyson, (*British Medical Journal*) makes the following suggestions concerning this subject, worthy of more attention by all:

1. *Anatomically*, the rectum is not ill-suited for the purpose of feeding. It is extremely well supplied with blood-vessels, which have a most free anastomosis; in fact, its mucous membrane is thicker and more vascular than that of any other part of the large intestine. Lymphatics of a large size are found here; and Mr. Wadham, late physiological assistant at St. George's Hospital, tells me that he has found several small solitary glands in this part of the bowel. Towards the anus, the secretory apparatus gradually disappears. At the lower part of the rectum, about an inch from the anus, there is a dilatation of the bowel—this dilatation being of considerable use for the lodgment of food; and, lastly, the anus itself, although it fails in its duty in some cases, yet in very many others acts effectually as a sphincter, much in the same way as the sphincter at the cardiac or the pyloric end of the stomach.

2. With respect to *absorption*, it has been said that substances known as colloids, such as albumen, gelatin, starch, etc., cannot pass into the system until they are converted into crystalloids; and as this change has been supposed not to take place in the rectum, the giving of enemata containing colloids, such as beef-tea, eggs, etc., has little or no nourishing effect upon the body; and the brandy, which is frequently added, only tends more to increase the colloid properties of the aforementioned foods, and therefore to render still more nugatory the use of these enemata. Graham supposes the coats of the stomach to dialyse the food during digestion, absorbing the crystalloids and rejecting the colloids—an action favored by the thick coating of mucus which generally lines the stomach; but Miller, after having quoted the above paragraph, goes on to say that "this suggestion probably requires some limitation—otherwise starch, gelatine, and other colloids, unless previously converted into crystalloids, would be wholly unabsorbed after they had been swallowed." The starch, as far as the stomach is concerned, is converted into a crystalloid by the saliva; and the starch which escapes being made dialysable in the mouth is made so in the duodenum by the action of the pancreatic juice. This is the reason, probably, why sugar has been recommended to be added to nutrient enemata. Whether the rectum has the power of changing colloids into crystalloids, is perhaps doubtful; but results which have and do now follow the use of alimentation by the bowel, are too evident to leave any doubt that the rectum possesses properties by which nutrient injections, if not wholly absorbed, are certainly partially so.

It has been suggested that the secreted intestinal juices which descend from above may dissolve a considerable amount of starch and animal fibre; and lastly a theory has been put forward, that the contents of an enema are carried from the rectum to the upper intestinal tract, where digestion and absorption actively take place; but, as digested meals can now be given to the rectum to a great extent, there will be little need for the rectum, as well as perhaps other portions of the bowel, to act the part of a stomach.

3. *The operation of administering an enema* requires to be carefully and skillfully done. Anyone who has given these injections by means of the ordinary ball-syringe, must have felt the inconvenience of this, the usual mode of procedure. If the ball be not quite full, air will probably be injected into the rectum, to the annoyance of the patient; and, even when the ball is full, great care must be exercised not to spill any of its contents on the bed. The best mode is to take a piece of India-rubber tubing, two or three feet long. At one extremity fix a small piece of bone, resembling that which is attached to an ordinary Higginson's syringe; to the other end of the tubing attach a funnel. When the injection is to used, the patient is placed on his side, the bone extremity of the apparatus oiled, and placed into the bowel, the other end raised, and the prepared enema is now poured into the funnel, and runs easily and comfortably into the rectum; the rate of progress can be increased or diminished according as the funnel is raised or lowered, or the food can be arrested at any time altogether by just nipping the tube below the funnel by the fingers of the hand holding it.* If this apparatus be not at hand, a Higginson syringe is the next best thing. I need hardly say that the rectum should be empty when a nutrient injection is to be given.

4. *In what cases should recourse be had to rectal feeding?* I would recommend it in all cases where obstinate and constant vomiting has existed for four days, or even before; of course, if the cause be a removable one, this should be attended to at once. Then there are a large number of cases in which rectal alimentation might be used beneficially as a means of treatment or even cure; such as painful diseases of the stomach, including gastric ulcer, cancer, dilatation, or, again, in some affections of the bowel.

5. *Composition of Nutrient Enemata.*—Hot water can scarcely be regarded as a food; yet, in some cases of collapse, the injection of it, about the temperature of the blood, might very reasonably be given. In many conditions of partial stoppage of the circulation, an addition to the volume of the blood has been successful, at least temporarily, in re-establishing the action of the heart.

Nutrient enemeta have been in the past, and are now, made with beef-tea, milk, the yoke of an egg, and a little brandy, either separately or combined; in bulk not exceeding three ounces, and given every two, four, or six hours, according to the exigencies of the case. Although the above have done good, their value has been enhanced since the introduction of artificial digestives. Pepsine, in its various forms, and hydrochloric acid, were long used in stomach digestion, before their value was recognized in rectal alimentation. Pepsine is now very much replaced by the preparations of pancreatine, the latter possessing the double power of acting on proteids as well as on starch. The two ferments which have the property of changing the proteids into peptones, and the starch into sugar, are called respectively proteolytic and diastatic; and, on account of this double property of pancreatin, the preparations of the latter have come very much into vogue.

Two preparations of pancreas for rectal use have been made—one by Dr. Leube, and the other by Dr. Horace Dobell. In the former, one part of finely minced pancreas is mixed with three parts of scraped meat, adding warm water sufficient to make a small injection, and sometimes a slight proportion of fat. Dr. Leube found, by experiments on dogs, that a considerable amount of nitrogen was thus consumed by the body. In the second preparation, a fourth of a pound of cooked beef or mutton is finely grated, to which are added twenty grains of pancreatic powder, and twenty grains of pepsine (pig's); the whole is mixed in a warm mortar quickly, and one tablespoonful of brandy, and enough warm water to bring the mixture to the consistency of treacle, are added; this is injected as quickly as possible after the mixture has been made.

I think that the best pancreatic preparation, and certainly the one most easily tried, is that known as liquor pancreaticus (Benger), strongly recommended by Dr. W. Roberts, of Manchester, in his Lumleian Lectures of 1880, "On the Digestive Ferments and the Preparations and Use of Artificially Digested Food." Speaking of the giving of food by the rectum, Dr. Roberts says: "The enema may be prepared in the usual way, with milk-gruel and beef-tea, and a dessertspoonful of liquor pancreaticus should be added just before administration. In the warm temperature of the bowel, the ferments find a favorable medium for their action on the nutritive materials with which they are mixed, and there is no acid to interfere with the completion of the digestive process." Thus, in one thing the rectum possesses an advantage in the use of this preparation over the stomach, in the absence of any acid to interfere with the full action of the pancreatic ferments. In giving these enemata, they should be made of milk, or milk with beef-tea, or of milk-gruel. To a half pint of the warm enema, a tablespoonful of liquor pancreaticus and half a teaspoonful of bicarbonate of soda should be added. About three ounces of this mixture should be injected every two, four or six hours, as the case requires.

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*To prevent air from entering the rectum, the tubing can be "clipped," either by a spring or the fingers, close to the bone extremity, whilst the food is being poured into the funnel.

PURPURA, ITS VARIETIES AND CAUSES.—Dr. Stephen Mackenzie (*British Medical Journal*) makes the following interesting suggestions:

He commenced by remarking that purpura was determined by—1, simple hemorrhage, (*a*) *per rhexin*, (*b*) *per diapedesin*; 2, thrombosis (*purpura thrombotica*); 3, embolism (*purpura embolica*). He then proceeded to point out that, in the present state of our knowledge, purpura was best considered under a mixed etiological and clinical classification. In this way, we were led to the clinical associations of purpura, which were frequently of far greater importance than the mere hæmorrhages into the skin. Purpura, in this light, might be considered under the following heads: 1. Occurring in connection with specific blood-diseases, as in small-pox, measles, scarlet fever, typhus, cerebro-spinal fever, ague, pyæmia, syphilis, rheumatism (pilosis rheumatica); 2. Occurring in connection with organic visceral disease, as with disease of spleen, liver, kidney, lung, and cardio-vascular system; 3. Occurring in connection with some primary alteration in the blood, as in (*a*), scurvy, rickets, and idiopathic anæmia; (*b*), excess of some constituent, as water (chloride of sodium); (*c*), the presence of matters foreign to the blood (drug purpura), as phosphorus, mercury, mineral acids, chloral, and iodide of potassium (iodic purpura); 4. Occurring in connection with affections of the nervous system (which, for convenience, are considered apart from class 2), as purpura following shock, grief, in connection with tubercular meningitis and angina pectoris, plugging of cerebral sinuses, etc.; 5. Idiopathic or essential purpura. Cases illustrating many of the varieties were narrated, and drawings exhibited.

POST-MORTEM SIGNS OF DROWNING.—Dr. F. Ogston, Jr. (*Edinburgh Med. Journal, April, 1882*) concludes a critical review of this subject thus:

1. When an external examination of the body is allowed, if abundance of water pours from the mouth on turning the corpse face downwards, and if white, watery froth is found at the mouth and nostrils, or if it may be made to issue from them on compressing the chest, we may be justified in giving an opinion as to the probability of drowning, especially when the accessory signs, viz., rosy redness of the face and front of the chest, gooseskin, and bleaching and corrugation of the hands, are well marked, presuming always that no lethal injuries are seen on the body which would appear to have been inflicted before death, and no traces of corrosive action, etc., from poisons be observable about the lips, hands, clothes, etc.; but that to justify us in giving a more positive opinion we ought to have furnished to us a detailed account of the locality in which, and the circumstances under which the body was observed before its removal to the place where it lies for examination.

2. That where a complete inspection of the body is permitted, we may give a more positive opinion when, in addition to the external appearances, water in marked quantity, mixed with white watery froth, is found in the lungs and stomach, and also, perhaps, when a large quantity of watery fluid is seen in the pleural cavities; when sand, seaweed, etc., is found in the bronchi, or even in the trachea; when the lungs are bulky or protrude on the removal of the sternum; and when the blood within the heart is wholly fluid—especially when with these signs we find marked appearances of asphyxia in the heart, lungs, liver, etc.

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Surgery.

ANEURISM OF THE PULMONARY ARTERIES.—The statistics of aneurism of the pulmonary artery, as collected by Dr. John F. Duffield, of New York, and published in the *American Journal of the Medical Sciences* for January, 1882, show that only eleven cases have been as yet reported. To these Dr. Duffield now adds a twelfth, occuring in the wards of the New York Presbyterian Hospital, and of which he gives the clinical history, with a careful description of the lesions as revealed by post-mortem examination.

DETROIT LANCET.

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Original Communications.

Cancer of the Rectum.*

BY THAD. A. REAMY, M. D., PROFESSOR OF OBSTETRICS, OHIO MEDICAL COLLEGE, AND GYNÆCOLOGIST TO GOOD SAMARITAN HOSPITAL, CINCINNATI.

Stenographically reported by Jas. M. French, M. D.]

GENTLEMEN: The patient whom I next bring before you for the purpose of examination in your presence, was sent to me by an alumnus of the college, living in an adjoining county. The patient is suffering from some disease of the rectum. As I wished to make a thorough examination in your presence, I have given the case only a superficial examination, without ether, and consequently do not know positively the nature of the trouble.

History.—Mrs. M., æt. 32; married about ten years; has had three children; youngest, four years old. The other two died æt. two and nine years respectively; causes of death not known. Patient has always menstruated regularly, except for some time just subsequent to her marriage, when she menstruated only once in four months. The only history of previous disease is an attack of dysentery about five or six years ago. Husband alive and perfectly healthy. Present trouble commenced suddenly about thirteen months ago, with a feeling of straining in the lower bowel. When she attempted to relieve her bowels, nothing passed away ; in about a month after the inception of the disease, however, the discharges contained blood, mucus and pus, sometimes in large, sometimes in small quantities. Previous to this discharge there is no history of constipation. Since last March she has had constant pain just over the upper part of the symphysis pubis and a sensation at the fundament as though something was lodged there. Her stools are dark in color, but the fecal matter passes in very small pieces not thicker than her little finger; has been constantly growing smaller, and give pain—very great pain. The mould of the feces was at first round, then became flat, with a groove along one side.

Examination. — The external appearance resembles that of ordinary hemorrhoids, but the moment I touch this cluster, which looks like and no doubt is a clump of hemorrhoidal tumors, I am impressed with the extraordinary hardness, and as I attempt to carry my finger into the rectum, through the external sphincter, I find the tissue hard on all sides; it resists the introduction of my finger more than is normal and the attempt causes very great pain. For this reason we will etherize the patient before attempting to complete the examination. With the patient under ether, I am now able to introduce my finger, but with almost as great difficulty as before. When a patient is anæsthetized, as you know, the sphincter ani relaxes so that the resistance is almost nil, but here I force my finger in against very great resistance, which grows no less as the bowel is penetrated, and although my finger is now in to a point above the internal sphincter, the resistance is just as great as below. This resistance is partly from the elasticity of the organ itself, but we also have a firm cartilaginous resistance. Not only that, but two-thirds of the circumference, and from the external to the internal sphincter, vertically, is rough, nodulated and irregular, and at two or three places I can, by touch, recognize distinct evidences of ulceration; There has begun a breaking down of tissue. We have then a constriction of the rectum, the elements of constriction being firm, extremely hard, *suspiciously* hard, and the surface irregular and nodular, as well as hard, and at several points distinct ulcers.

And now, gentlemen, to summarize the history: Patient æt. 32, comparatively healthy until 13 months ago when she was suddenly taken with rectal tenesmus: shortly after this in addition to tenesmus she has constant pain over symphysis pubis and in fundament. Sensation of foreign body in rectum. Fecal matter moulded size of little finger, grooved on one side, passed with muco-purulent and bloody discharge. Pain in defecation excruciating. Physical examination. Just able to introduce my index finger into the rectum. Rectal walls hard, nodulated and infiltrated and in several places ulcerated. Now comes the question of diagnosis: What causes this condition of affairs?

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*A Clinical Lecture delivered at the Good Samaritan Hospital.

Of course every man of you is ready to announce that we have to deal with a stricture of the rectum. Very good so far, but that is only a partial diagnosis. Upon what does this stricture depend? The history with nothing more: the size of the fecal masses which she compares to the thickness of her little finger, not more than $\frac{1}{6}$ or $\frac{1}{4}$ inch in diameter, the excruciating pain attending defecation would indicate stricture at some point. Of course we must know the cause of this contraction of the calibre of the gut before we can apply the proper remedial measures.

Leichtenstern has formulated the causes of obstruction of the intestine as follows:

By (1) causes external to bowel; (2) causes in walls of bowel; (3) causes in cavity of bowel. 1. An obstruction to the passage of feces through the rectum may depend on cysts and solid tumors in the pelvic cavity. In males prostatic abscess may cause temporary stricture of rectum; and in elderly men an enlarged prostate may by pressure almost obliterate the lumen of the rectum. In females a retroverted uterus, or fibroid tumor of the uterus may decrease to a marked degree the lumen of the bowel.

2. From growths in the intestinal walls. From hyperplasia or hypertrophy of normal tissues; growth of new elements; as benign tumors and infiltration of malignant elements; cicatrical contraction.

3. Causes in the cavity of bowel. Foreign bodies, pedunculated tumors of walls, valvelike processes of walls, bridles of tissue running from side to side.

From the physical examination we can exclude the first and last causes, and we find ourselves limited to that class of causes where the obstructing agent is in the intestinal wall. Now what are the efficient agents in producing such cause?

(*a*) *Syphilis.*—Cicatrization and consequent contraction of specific ulcers of rectum, the result either of the immediate application of the specific virus, as in unnatural connection, or of constitutional infection. In this case by the personal history of the woman and her husband we can exclude syphilis.

(*b*) *Dysenteric Ulcers* might cause stricture, as also might ulcers from any cause, from injury, pressure of foreign body, but in such cases we would get a definite history. Here we have no report of any injury. It is true we have a history of dysentery five years ago, but if the stricture was dependent on that, instead of the nodular, infiltrated and hard masses, in the rectal walls, the bowel would be soft and normal until the stricture was reached when the sensation would be just like a stricture produced by a ligature. So we can exclude simple stricture.

(*c*) *Cancer.*—This is a notorious cause of stricture: Gross says: "Nearly all the cases of stricture of the bowel that have come under my notice having been of a carcinomatous nature." In stricture from malignant growth the intestinal wall is hard, irregular, infiltrated, possibly if recent, very possibly if of long standing, the disease has also extended into the neighboring parts. Palpation gives evidence of ulceration. So now I think we may safely diagnosticate cancer of the rectum.

Carcinoma recti occurs in all varieties of malignant growth, authorities not agreeing as to the prevailing type. Gross and Smith claim that scirrhus is the usual form, while Bryant claims that epithelioma is the variety oftenest found. Encephaloid and melanoid cancers of this organ are now and then met with.

Patients are usually past middle life, though there is a recorded instance of a child twelve years old having cancer of the rectum.

The cancerous elements and nodules are usually first found between the mucous and muscular layers of the bowel, though sometimes they are found between the peritoneal layer and muscular coat. Of course, these distinctions are to be made only early in the disease. After the lapse of time the cancerous material pushes its way into all surrounding tissues, infiltrating them to such an extent that no differentiation of tissue can be made. Due to this tendency to infiltration, in the female the rectum is often secondarily affected from the uterus. From its origin in the rectum, this disease extends in all directions, implicating bladder, prostate gland and urethra in the male, and the vagina and uterus in the female. These cancerous nodules increase in size, and at the same time as a result of increased size, encroach on the lumen of the bowel gradually until finally there may be complete closure. By and by, as a result of contraction of the fibrous elements of the tumor, the blood supply is cut off and ulceration takes place. It is from these ulcers that the muco-purulent and sanguineous discharges, hereafter to be mentioned, come.

The point of origin of the cancer is usually from an inch to one and one-half inches within the bowel. Other points are affected sometimes beyond the reach of the finger. After the disease has lasted some time, infiltration has taken place to such an extent that probably five or six inches of the bowel is implicated.

The symptoms of cancer of the rectum at an early period of the disease are very obscure. At first the symptoms are vague and indistinct. Patient notices that the bowels move very irregularly and with more difficulty; some pain may be present; an occasional diarrhœa, with muco-purulent and sanguine ous discharge. As time passes and the tumor grows larger, the interference with defecation becomes greater. Greater pain, feces decreased in size, flattened like a ribbon, possibly, instead of being round: discharges bloody mucus, and finally there may be a constant sensation as if a foreign body was in the bowel. On account of the intense pain incident to defecation, the patient goes days and even weeks without an action of the bowels. Then a diarrhœa supervenes, affording partial relief. Later in the course of the disease the calibre of the bowel may have been so encroached upon that there is complete stoppage. In this variety of malignant growth we also find constitutional symptoms, presenting to us the well-known picture of "cancerous cachexia." This occurs only when the disease has made great progress. Then to add to the horror of the already terrible disease, the bloody mucous discharge drains away constantly and at last the patient may lose control of the sphincter, when his linen is constantly soiled by blood, mucus and fecal matter.

Due to the readiness with which the cancerous tissue breaks down, small pockets form just above the constriction, and catching the decomposed discharges from the ulcerated tissue, extend to the surface or into some neighboring organ. In this manner we have formed the various kinds of intestinal fistulæ. Fistulæ may extend into the bladder, and in one case fecal matter passed through the bladder into the uretha, blocking it completely and thus causing fatal retention of urine.

Prognosis.—In these cases palliation is the only thing the surgeon can do. A cure is impossible, so all we can do is to watch the patient and "smooth the stormy passage to the grave."

Treatment.—Brilliant as have been the advances in surgical practice in the last quarter of a century, still surgery holds out a very uncertain relief to the patient suffering from cancer of the rectum. For a while it was the recognized form of treatment to extirpate the diseased mass. This operation was gradually allowed to drop out of surgical practice, being considered "barbarous and unscientific." In the last few years, however, surgeons have performed the operation and claiming better results than formerly, they now recognize it as a legitimate procedure. When complete stoppage of the bowel ensues then comes the question of colotomy. The indications for this operation, its proper performance, etc., I will leave to my distinguished colleagues Profs. Dawson and Conner. Dilatation of the stricture can be done only early in the case before ulceration has commenced. After the inception of ulceration all authorities agree that bougies or any other dilating instrument are contra-indicated. Gradual dilatation yields good results: this of course, only before ulceration has supervened. As the tissues sooner or later break down, the use of bougies is limited, and the good effects are only temporary. Gross suggests notching the growth when it extends into the sphincter ani and crowding a tent into the cut. This will at least give temporary relief. Incision of the stricture has also been practiced; this consists in carrying your bistoury boldly through the tumor and subjacent tissues until the edge strikes against the coccyx. The relief thus afforded is extraordinary although it is but temporary. Not long ago I had a patient in this hospital from near St. Marys, Ohio, in whom the stricture was much greater than this. I divided it, and the relief was so great that my patient and her friends thought I had cured her, and after they had gone home sent me messages of the most extravagant praise for my success. Poor woman! deluded by the great relief from the most agonizing pain imaginable into the belief that she had been cured, only to find her relief but temporary and to suffer again the same agonies. Of course I told her physician that the operation was only palliative and the relief could be only temporary. Since she is doomed, and that before many days, to suffering indescribable and even to death, who would not say it would be wrong to tell her the relief is only temporary? There are questions of this nature that press our judgment mightily; but in a case where death stands at the door, if you can give the patient one week of relief you do a great thing and ought to do it. If you will but watch the disappointment pictured in the countenance of an individual when told by a physician, "I cannot cure you," you will feel that it is your duty to give what relief you can, witholding a statement of the worst.

As to medicinal agents we can only treat symptoms. To relieve pain, narcotics, internally, subcutaneously or as suppositories or enemata. Injections, laxatives, etc., to keep bowels open. Here let me insist on great care in giving injections, or irreparable damage may be done. The tube must be introduced into the rectum very carefully and gently as the tissues are so damaged by the disease that the tube may easily perforate the rectal wall. When the ulcerated surface is extensive copious hemorrhage may take place requiring the use of astringent washes, solutions of zinc, iron, etc., to control it. The chief point is alimentation of the patient; give such foods as are very nutritions but not bulky. Avoid bread and vegetables as they leave considerable feculent matter to be carried off by the intestines. Give plenty of milk, meat, eggs, soups, etc. As above stated the main indication is to maintain the strength of the patient and so far as possible protect her from pain.

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The Treatment of Operation and Other Recent Wounds.

BY CHARLES S. SHELDON.

[Paper read before the Union Medical Society of Northern Michigan.]

YOUR committee on operation and other recent wounds, appointed at our last session, respectfully submit the following report:

The subject under consideration is one of more than ordinary importance. That it is not without interest to the members of this society, is shown by the spirited discussion which took place on this topic at our last session. Whether with reason, or otherwise, the surgeon is made accountable by his clients and the general public, as to the manner in which wounds entrusted to his care go through the process of healing. If these wounds get well speedily and with but little local or general disturbance, it is supposed to be due to his superior skill in such matters; whereas, if they heal by a long process of pain and suppurative fever, this result is as frequently charged to his want of knowledge of the means and measures necessary for their speedy repair. Although we know that these judgments are frequently erroneous and short-sighted, and the character of the wound, the condition of the patient's system, the surroundings of the case, and a hundred other circumstances, may vitiate the most careful and scientific treatment in some cases, while in others, the most abominable blundering is followed by a successful result, yet, for all that, we recognize that there is a substantial truth at the bottom of this popular judgment, and that it is a fact that cases treated on proper principles are apt to get along much better than those which are not.

As practitioners of the surgical art, therefore, we should aim to have well-formed and definite ideas on this subject. We should be fortified not only by our own experience, but by a knowledge as well of the methods of the best surgical authorities throughout the world. The advances in surgical methods are such that we cannot refuse to let our capability be measured entirely by our success. Prof. Volkmann, of Halle, in his address before the International Congress, said last August: "To-day we may say with the deepest conviction that the surgeon is responsible for every disturbance that occurs in a wound; that it is his fault if even the slightest reaction or redness is developed in it; or if an amputation is not healed by first intention. He must reproach himself severely, if, after an operation, bagging of pus occurs, and especially if death results from pyæmia." In endeavoring to present to you the latest phases of this important subject, it has seemed best to gather together the recent utterances of the most distinguished surgeons, in advocacy of their favorite plans of treatment, and formulate some of the most important principles underlying any and all plans which have proved most successful.

The plan of procedure introduced some years since by Prof. Lister is familiar to the members of this society. Together with great care and cleanliness, he insists on a careful antiseptic management of the part, both during the operation and subsequently, with the view of preventing inflammatory action by the keeping of the wound free from bacteria and other kindred organisms. These views were adopted by the surgical authorities of the world, and for some time a surgeon of eminence hardly dared to ignore the spray. As late as last August, Prof. Volkmann, in his address above referred to, speaks of it as the greatest advance that surgery ever made, and as having revolutionized the whole surgical art. It is not remarkable that Listerism was greeted by the enthusiasm that it was. The theory underlying it was most attractive to the surgical mind, and, if true, was likely to prove the great desideratum in surgical practice. If it were true that the failure to procure union by first intention in all cases, pyæmia and many other disturbing causes, were due to the influence of bacteria and micrococci floating in the air, and that by keeping the part affected constantly in contact with some agency which would destroy these offending particles, we could prevent these accidents, surely here was a genuine discovery, which would entitle its author to an immortality of surgical renown. But, unfortunately for Listerism, the sober, practical judgment of to-day has decided that the special features on which the system rests, viz., the peculiar use of carbolic acid in the form of the spray, and, it may be, the use of the acid in any form, have not sustained the place as a surgical panacea which was at first accorded to them. Even Dr. Lister himself has recently admitted that the importance of the spray has been overestimated, and in the International Medical Congress, out of fifteen of the principal ovariotomists of the world, but two were unconditional advocates of its use in ovariotomy. As indicating the drift of surgical opinion during the past few months, Dr. Gross requires strict cleanliness of instruments and dressings, but makes no use of carbolic acid or any other antiseptic in any form. Yet he claims as good results as the most perfect Listerism could produce. Dr. E. M. Moore, of Rochester, one of the ablest surgeons in the country, stated at the meeting of the American Surgical Association last month, that he regarded the use of the spray as dangerous—leading in some cases to carbolic acid poisoning—that the strength of the solution was not such as would detroy the disease germs, and it had occurred to him that the spray might even collect them by the rush of the air produced. He accordingly played with the spray upon a sheet of plate glass with an atomizer, and found the motes collected from the atmosphere on every quarter inch of its surface. He considers the spray a most ingenious device for spoiling a peritoneum. On the other hand, the testimony is rather convincing, that in cases of the opening of large joints, or extensive abscesses, there is an advantage in carrying out the plan of Dr. Lister in detail. I think, too, that the profession is willing to bear hearty witness to the good effects of Dr. Lister's work upon Modern Surgery in the greater attention paid to scrupulous cleanliness, pure air, care about drainage, hemorrhage, etc.

The plan of treating wounds without water was referred to at our last meeting, and, as statistics and surgical authorities have of late been quite favorable to this method, it may be useful to call your attention to it. It is called the Gamgee method, from the name of the distinguished English surgeon who first demonstrated its usefulness. The same plan is used in a modified form by Dr. Wm. Savory and Prof. Esmarch. The underlying principles are: dryness of the wound; thus removing one of the conditions of putrefaction; rest, and infrequent change of dressings; circular compression and suitable position, with the use of antiseptics as an important adjunct. The advocates of this plan point out that primary union is most likely to take place when fresh surfaces are brought together in their natural state and maintained so without disturbance, the chief cause of failure being "meddlesome surgery," and the essential principles of success being rest, cleanliness and asepsis. M. Gamgee's plan is as follows: The wound being closed with silver sutures, he places next it an antiseptic covering in the form of a gauze and oakum pad. He then envelopes the part in cotton wool—½ inch or so thick—sufficiently to protect the bony prominences, and, in case of a limb, renders it immovable by the application of moistened paste-board splints, lateral and posterior. A gently compressing bandage and suitable drainage tubes, when needed, complete the dressing. Water and air are excluded, since they contain materials which act as irritants or poison. Only the blood that is not adherent is removed, since what remains acts as a hermetically sealing apparatus. When the discharge is considerable, he removes only such portions of the dressing as are loose, and applies more dry material to absorb the pus. He frequently leaves the wound undisturbed in this way till the ninth or tenth day. Dr. Savory, whose statistics indicate the least mortality from blood-poisoning of any published, adopts the following plan: Having carefully attended to the first steps, using silver sutures and probably the carbolized cat-gut ligature, he places next the wound a layer of folded lint, soaked in a two per cent. solution of olive oil and carbolic acid. Over this is placed two or three more layers of lint, with or without cotton wool, so arranged as to exert equable pressure on the outside, and secure the accurate coaptation of the surfaces of the wound throughout. A bandage is placed over all, and the limb put in suitable position. As a rule, he does not disturb the wound for forty-eight hours, though sometimes sooner, if indicated, when, if the progress is satisfactory, the same dressing is reapplied. But if the discharge has become at all profuse, or the surfaces do not remain in contact, or much redness about the edges appears, he substitutes at once a bread and water poultice, which he thinks an admirable dressing, and continues to employ it till the deeper parts of the wound are closed. When dressing the wound he uses a syringe, with a weak, tepid solution of permanganate of potash. The statistics of Prof. Esmarch are so remarkable that mention should be made of his treatment. He states that out of 395 great operations (with six deaths), 85 per cent healed by first intention, with only one dressing. The cases were all dressed with pads soaked in iodoform and absolute alcohol —10 per cent—fastened by an iodoform bandage. Over that a large pillow of gauze and jute, a moist bandage, and over all an elastic bandage.

As to the treatment recommended in some of our best text-books; Sir James Paget, in Holmes' Surgery, in the treatment of incised wounds, applies to a dry, clean, neatly approximated wound, a light covering of lint soaked in oil. He rarely removes the sutures or any part of the dressings before from four to seven days. The article on amputations in Holmes' is by Dr. Lister. In it, of course, he advises the antiseptic dressing in all its details, including the spray during operation and all subsequent dressings, the antiseptic catgut ligature and metallic sutures. A strip of lint soaked in a 10 per cent. oily solution of carbolic acid is placed in the most dependant part of the wound as drainage, with a covering of oiled silk coated on both sides with copal varnish, called "the Protective," next the stump. Next to this is placed about eight layers of antiseptic gauze, made by impregnating a cotton cloth of open texture with a mixture of carbolic acid one part, resin five parts, and paraffin seven parts, the cloth being passed in several layers between rollers, after being dipped in the solution. On the outside of all is placed some impermeable tissue, like gutta percha or Macintosh cloth. In the International Surgery, just issued, Dr. Ashurst uses silk ligatures, well waxed, and silver sutures. The stitches should not be too close, and if the drainage is not sufficient he places a fenestrated rubber tube in the angle of the wound. He thinks the dressing should not stick to the wound, hence wet dressings are preferable. He thinks pure laudanum is best, since it is antiseptic from the alcohol, but has used with excellent results diluted laudanum, or simple olive oil. He has no particular objection to the carbolized oil if there is not too much acid in it. A large piece of lint is saturated with the laudanum or whatever is used, and laid under the stump. It is then folded over and across it, so as to make five or six layers of the wet lint. The whole is then covered with oiled silk or some other impermeable tissue, which will keep the part moist for at least 48 hours. After this the dressings are removed every day. The washing is with a weak, tepid solution of permanganate of potash, using the sponge as little as possible. He disapproves of cold water dressings, as does Dr. Van Buren in the same work.

Prof. Erichsen, in the last edition of his Surgery, emphasizes the importance of cleanliness, accurate coaptation of the wound surfaces, thorough drainage as long as required, and uses metallic sutures, though as sparingly as possible. When the wound is closed he uses strips of plaster between the sutures, places a fold of lint moistened with a one per cent solution of carbolic acid or carbolized oil over the stump, over which is laid a piece of oiled silk or other impermeable material, while the whole surface in the neighborhood of the wound is kept cool by a piece of wet lint, or, if the inflammation threatens to run high, by irrigation. He also uses compresses and bandages when indicated. The first dressings are allowed to remain for two or three days, and he endeavors to secure rest by refraining from disturbing the wound unnecessarily. He endorses the antiseptic dressing of Prof. Lister, though he deprecates the use of local antiseptic measures to the exclusion of means to correct the general hygienic and sanitary surroundings, and improve the constitutional condition of the patient. The last edition of Gross' Surgery advises that in larger operations the permanent dressings should not be applied till four or five hours have elapsed, and all danger of hemorrhage passed, the flaps being in the meanwhile left apart and covered with light compresses wet with cold water, and frequently irrigated. After this the parts are carefully stitched in place, with long and narrow strips of adhesive plaster between the stitches. A long, slender, well-oiled tent is placed in the lower part of the wound for the first 36 or 48 hours, when, if necessary, a rubber tube may be put in its place. A roller is then placed so as to exert firm and equable pressure from the trunk to the very edge of the stump, which is then eveloped by a few crucial turns of the bandage. The limb is placed in an easy position over a sheet of oilcloth, and kept constantly wet with cold or warm water, as most agreeable. The dressings are allowed to remain from two to four days, according to circumstances.

This you will recognize as the old-fashioned manner of treating wounds, and the only dressing in which the continuous application of cold water is advised. With this exception, the great weight of opinion is in favor of some antiseptic, but it may be called an open question as yet as to which will ultimately be able to secure most perfectly the desired asepsis. While carbolic acid has been, and is still used more generally than any other, experience teaches that it is not free from danger, especially when applied in the form of spray, or otherwise, to large raw surfaces. Cases of fatal carbolic poisoning by producing acute nephritis are already numerous, and Lister himself recognizes this danger when he tries to reduce the strength of the solution to a minimum and uses but one per cent. in the spray. It may be stated absolutely that a solution of not over five per cent. should be applied to a raw surface of any considerable extent. It is also claimed that carbolic acid is not a true germicide, that it does not destroy the bacteria, but only paralyzes them while applied. It can be safely claimed for it, however, that it is a prophylactic against inflammation, and a useful remedy in certain painful and inflammatory processes. Other antiseptics, advised by different surgeons, are: iodoform, salicylic acid, boracic acid, permanganate of potash and chlorinated soda. Iodoform has been extensively used in wounds during the last year, especially in Germany, and the most sanguine expectations have been entertained regarding it as an antiseptic, but quite recently numerous cases of poisoning by it have come to light, and Dr. Sands, in the March number of the *Medical Record*, regards it as only suited to a certain class of operations when carbolic acid cannot be safely used, such as the extirpation of cancerous growths from the rectum or mouth. In reviewing the evidence before us as to the most advanced treatment of operation and other recent wounds, we are struck by the fact that though Listerites and anti-Listerites may quarrel over the spray, or some other detail of method, yet the main underlying principles of treatment are admitted and adopted by all. How then shall we dress such a wound with the view of obtaining union by first intention? We will first secure a wound as clean cut and free from raggedness as possible. We will, during the operation, demand absolute cleanliness, that is, absence of dirt, in everything that is to come in contact with the wound, including instruments, the hands of the operator and his assistants, the sponges and the water. It is probably a safe and good plan to rinse these all in a weak solution of carbolic acid or some other antiseptic. We will use to cleanse the wound during and after the operation, a two per cent. solution of carbolic acid of about 100° Fahrenheit, to avoid chilling the parts, and to maintain the natural temperature of the body, while as a styptic, hot applications are preferable to cold. Our sponges should not only be clean, but soft, and should be applied as gently as possible. We will carefully ligate every vessel which shows a tendency to continue bleeding, using freely for this purpose ligatures of carbolized cat-gut or some other animal material which can be absorbed. Well-oiled silk, however, is admissible. The wound wants to be as dry as possible, since a dry wound is a rapidly healing one. Of course, all blood clots and collections of serum are to be carefully removed. The next point to be looked after is thorough drainage, especially in wounds of much depth. For this purpose, we will use for the first two or three days, either a piece of fenestrated rubber tubing or a strip of lint soaked in carbolized oil, or, if the cavities are not too large and deep, hair drains made by arranging horse-hairs in bundles and soaking in carbolized oil. Whatever is used should go to the bottom of the wound and be brought to the surface at its most dependent part. They should not be too large, nor be kept in the wound too long, lest they might act as foreign bodies and hinder the simple processes of nature. If rubber tubing is used, and should be needed beyond two or three days, it may be drawn out a little at each dressing and cut off till it is about one-half inch in length. Suitable draining tubes having been inserted, we are now ready to close the wound. This we will do by gently pressing the deeper parts of the wound together first, and then, having neatly approximated the edges, securing them by sutures of silver wire quite close together, this being possible when the matter of drainage has been thoroughly attended to. We will use the silver wire because it is not irritating, but perfectly-waxed silk is still used by many good surgeons. After the closure of the wound, our next most important indication is the complete exclusion of air. This may be secured by a variety of expedients: We may use the gauze and oakum pad of Gamgee, or the layer of folded lint and carbolized oil of Savory and Erichsen and Paget, or, if you wish, the "Protective" of Lister. Perhaps the best is the lint and carbolized oil, large enough to extend several inches beyond the edges of the wound. Over this may be placed either a uniform layer of fine cotton wool as used by Gamgee and Savory, or the antiseptic gauze of Lister and Esmarch. Either will meet well the indication as regards the exclusion of air. Over this is placed a firm, equally pressing bandage, extending from the part nearest the trunk to the edge of the wound, with suitable pads, when necessary, to insure approximation of the wound surfaces. The moistened pasteboard splints are admissible and advisable when necessary to secure one of the most important indications, viz., rest. As to the impermeable covering of rubber cloth used by Lister and Esmarch, it seems unnecessary, and just as good results are secured without it. This dressing should not be disturbed for from two to four days, when, if necessary, the wound is carefully exposed, and, with but little use of the sponge, the part is carefully washed in a two per cent. solution of carbolic acid or permanganate of potash. The subsequent dressings should not be too frequent. Thorough ventilation of the apartment and cleanliness of the surroundings, should, of course, be insisted on; while the constitutional treatment by tonics, especially such as the tincture of iron and quinine, should be carefully looked after.

Eye Enucleated for Sympathetic Irritation—Some Peculiar Features.

BY LEARTUS CONNOR, A. M. M. D.

[Read before the Detroit Academy of Medicine.]

INJURIES to the eye-ball have a peculiar interest to the surgeon. Not only is the usefulness of the injured eye at stake, but also that of its fellow eye. Each case presents a study by itself. Hence the interest attaching to reports of individual cases. The following case exhibits the effects of a very large piece of steel retained in the substance of the ciliary body for a period of over four months, with only trifling symptoms:

On October 1st, 1881, Charles Brand, of Grand Trunk Junction, was brought to me by Dr. Hoyt for examination and treatment. He was a German, aged about 45 years. His past and present general condition and family medical history were good.

He gave the following account of the injury to his eye. While working in the Steel Spring works three days previously, a piece of iron or steel had penetrated the left eye, instantly destroying the sight and producing considerable pain.

On examination I found the following conditions:

In the cornea, at its lower border, and mostly within the vertical meridian, where there was an opening about one quarter of an inch in length, a considerable rent was seen in the iris immediately behind the corneal wound. Through the corneal opening the iris had prolapsed. The pupil was drawn toward this opening, the lens was broken into pieces and fragments of it floated in the anterior chamber. On dilating the pupil with atropia the fractured condition of the lens was still more apparent. Of course no idea of the condition or contents of the vitreous chamber could be obtained by the ophthalmoscope.

The question now arose as to the best method of procedure. The removal of the incarcerated iris was first done. Delicate probes were now carfully passed through the wound into the eye, to discover, if possible, whether the piece of iron had entered the eye or simply struck it and passed on, or fallen away. Nothing of the nature of a foreign body could be detected by such probing as seemed justifiable.

Atropia was now instilled until the pupil was dilated as far as its inflammatory and otherwise crippled condition permitted. Directions were given to keep the eye constantly bathed in a saturated solution of boracic acid, and the pupil dilated with atropia solution. As a result the wound healed without any trouble. The patient had been told that probably there was within the eye a piece of metal, and if so, the eye would doubtless have to be removed. He was directed to return if the eye remained irritated, and especially if the other eye became irritable. After some three or four visits I did not see him until January, 1882. He returned, telling me that his eye had been troubling him for some time and that the other eye was weak and often painful. He said he had consulted several other occulists and all had advised him to have the eye removed, and that if such was my opinion, he desired me to do the operation as soon as he could obtain leave from his shop. There was and had been but little inflammation of a sthenic character in the injured eye and only slight irritation of the sound eye. Still the iris of the diseased eye was in a state of inflammation, and the slight circum-corneal injection, and evident atrophy of the eye-ball distinctly called for an enucleation. Accordingly arrangements were made for its enucleation on February 13th. Assisted by Dr. Hoyt and Mr. Chittick, a medical student, I removed it on that day. Desiring to avoid the effects of ether I proposed to the patient to remove the eye without the administration of ether. He assented and the operation was readily done.

About the only severe pain experienced was during the section of the conjunctiva. He winced slightly when the muscles were divided, but not at all when the optic nerve was severed. There was far less hæmorrhage than when ether or chloroform is given. Recovery took place without any hindrance or complication. The irritation of the sound eye speedily disappeared. On opening the enucleated eye, we found the lens entirely absorbed, the capsule opaque, the iris and entire choroid and ciliary body inflamed, the vitreous mostly disintegrated and a piece of iron in the posterior portion of the ciliary body. It had evidently entered the eye, cutting with the longest and sharpest portion of its edge, penetrating the cornea, anterior chamber, iris, lens, ciliary body, only stopping at the hyaline membrane of the vitreous. It had not stopped directly back of the wound, but had passed its full length to the left of the corneal wound. Hence the delicate probes passed at the first examination had missed finding it. It is very questionable whether had it been discovered at the first the result would have been different. Had it been discovered it could have been removed only by great laceration of the ciliary body and a double amount of injury to the lens, capsule and cornea. An irido-cyclitis and subsequent atrophy would almost certainly have resulted in bringing about the same state of things that actually occurred. It is probable that a severer reaction would have caused greater suffering. The size of the fragment of iron was in length three-fourths of an inch and in width one-quarter of an inch. There did not seem to be more inflammation about this piece of metal than there was elsewhere throughout the ciliary body and choroid. The comparatively slight constitutional effects upon the man were somewhat exceptional. Almost all of the time after the healing of the corneal wound he was able to continue at his work. The swollen lens caused the greatest distress. Its fragments were soon absorbed, and afterwards but slight pain was experienced.

The points of special interest are:

(1). The relatively slight pain caused by such a severe and jagged wound to the ciliary body.

(2). The relatively slight disturbance of the eye and its fellow by its long continuance in the ciliary body.

(3). The slight pain from the operation of enucleation performed without any anæsthetic; the trifling hæmorrhage and the rapid repair of the wound were in the highest degree satisfactory.

(4). The specimen exhibited proves that a very large piece of steel may remain for months in the ciliary body itself without causing sympathetic ophthalmia.

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Prof. F. W. Beneke on Constitution and Constitutional Diseases of Men.*

BY DR. HERMAN P. V. PETERSHAUSEN.

I.—CONSTITUTION OF HEALTHY MEN AT DIFFERENT AGES.

MEN gain their full height generally with the age of 21, in exceptional cases not before the 25th year or even later. Race has a determinate influence upon the growth.

The following table shows the length of the body of individuals from several nations, according to metre measure (centimetres) :

AGE.	AMERICAN.		ENGLISH.	
	Male.	Female.	Male.	Female.
At birth	——	48.2	49.1	——
1 year	74.0	70.8	——	——
5 years	106.0	105.3	104.6	——
10 years	132.6	131.5	132.0	——
14 years	155.1	153.2	151.1	——
17 years	168.4	157.4	168.1	——
21 years	172.1	——	171.2	——

AGE.	BELGIAN.		GERMAN.	
	Male.	Female.	Male.	Female.
At birth	50.0	49.4	——	——
1 year	69.8	69.0	——	——
5 years	98.7	97.4	——	——
10 years	127.3	124.9	130.7	——
14 years	146.9	144.6	148.8	——
17 years	159.4	154.6	166.9	——
21 years	167.0	157.0	170.0	——

It appears from the measurements that the length from birth to full development increases in case of males 3½ times; in that of females, 3⅓ times.

The weight increases during the same period from 20 to 21 times in males and only

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*This is not a Translation from Virchow's Archives, as was erroneously, and without my knowledge, stated in THE LANCET for 1881, on page 191, but a review of a little book published under this title by Elwert, in Marburg, 1881.

18⅖ times in females. During the first year the weight is nearly tripled. Just before the age of puberty there is observed a more rapid growth and increase in weight than previous to that period.

Our knowledge of the constitution of men would be greatly amplified if the conditions of the growth of internal organs could be studied in a similar manner as the one of length and weight. But this is the more difficult as healthy subjects get rarely into the hands of an anatomist.

The growth of internal organs goes not parallel with that of the whole body. There take place changes in the relative size and weight of single organs from year to year and these cause doubtless the various vital phenomena during different periods of life.

The more rapid growth of the child depends upon manifold conditions. When a healthy organism grows faster within a certain period it must take up more nourishment, must digest and assimilate this and form tissues of it. All organs that are necessary for digestion, absorption, diffusion and formation of tissues have at this time to do much work. Though hitherto it has been believed that innervation is responsible for the greater part of these changes, there was before Beneke never made even an attempt to examine the absolute and relative size of the organs at the time of growth and full development and to explain the vital phenomena by the observed facts. The doctor was the first to try this and arrived at the following general results:

1. The child is born already with intestines relatively longer than those of adults. This is especially the case with the small intestines that remain longer till the period of puberty. The caliber of the small intestines of children is likewise larger than that of adults if computed in both cases to one hundred pounds of weight of body.

2. The liver is more voluminous than both lungs together and always rich in blood. Only at the age of 18 or 19 the liver and lungs are of equal volume, and, later the liver is smaller than the lungs, at least in males. The lungs of females are smaller than those of males.

3. The kidneys together are always during childhood more voluminous than the heart, though this grows pretty fast during the first year of life. With the beginning of puberty it commences to grow more rapidly, gets a definite volume with the age of 21 and grows then slowly until after the 40th year.

4. The great arterial blood-vessels are relatively very wide in the child, grow narrower with the increasing age and appear the narrowest with the beginning of puberty. Then, they begin to get wider and grow in circumference from the 20th year a little, from the 40th year more, so that the relative width of the arteries of people between 50 and 70, is nearly the same as that of the new born.

It is remarkable that the great vessels of the neck of children are wider than the common iliac, while after puberty has arrived, the iliacae get wider than the arteries of the neck. The carotides change even very little after the age of 20. Moreover, the pulmonary artery is always wider in the youth than the aorta ascendens. Only after complete development of the body, often not earlier than with the age of 40 the pulmonary artery is found narrower than the aorta.

Some of the doctor's measurements, upon which he based his views, will be found in the following table:

VOLUMES OF THE PRINCIPAL ORGANS.

(METRE MEASURE.)

Age and Sex.		Length.	Vol. of Heart.	Vol. of Lungs.	Vol. of Liver.	Vol. of Kidneys.	Aorta Asc.	Art. Pulm.
		Ctm.	C. C.	C. C.	C. C.	C. C.	M. M.	M. M.
New born. Did not breathe.	M.	49.5	22.5	43.5	126.	20.	18.	25.
2 years.	F.	76.	40.5	239.	330.	77.	32.	35.
6 "	M.	104.	83.	469.	606.	104.5	40.	44.
14½ "	M.	151.	151.	953.	1148.	191.	49.	52.
16 "	M.	155.	160.	1078.	1042.	168.	49.	50.
19 "	M.	174.	300	1787.	1233.	214	62.	64.
31 "	M.	166.5	308	1757.	1373.	290.	68.	68.
55 "	M.	172.5	294.	*2480.	1616.	218.	72.	69.

* Emphysema.

It appears from this table that from birth to complete development the length increases 3½ times, the heart from 10 to 13 times, the lungs from 20 to 25 times, the liver 12 times, the kidneys 12 times, the circumference of the ascending aorta 3 times, and that of the pulmonary artery $2\frac{1}{10}$ times. The length of the intestinal canal increases in the same period only $2\frac{1}{2}$ times.

The related facts not only harmonize completely with the doctrines of physiology, but explain at the same time the partially unknown causative conditions of certain normal vital phenomena.

The growing child needs a relatively larger quantity of food than the adult, in order to sustain what has grown already, and to promote further growth. Children excrete more urea and carbonic acid than adults. We find, therefore, that the small intestines, the field of absorption, are relatively not only longer but has a larger surface in children than in adults. The liver is likewise relatively larger in children, on account of its importance for the absorption of food, for the formation of biliary acids and of cholesterin, the latter being absolutely necessary to build up the cellular elements of the organism and to form nerve substance. The formation of new tissues, etc., requires more diffusion of blood toward them. From this reason we observe the relatively large calibre of the arterial vessels of children, and as a sequence of this and the relatively small left ventricle a low blood pressure.

A more lively change in the building material requires more work from the organs of excretion. We find, therefore, large kidneys in the youth. That the lungs are comparatively smaller in children than in adults will be explained by their greater activity during childhood.

The relatively rapid growth of the child's brain depends upon the relatively great calibre of its carotids. The relative decrease in the calibre of the arteries taking place gradually toward puberty causes then more work for the heart and an enlargement of its size, in consequence of which the blood pressure increases during the latter period of childhood. That the lower portion of the body at the same time grows relatively more, must be explained by the considerable increase of the iliacæ taking place then.

The quicker the size of the heart enlarges the sooner develop the phenomena of puberty. In case the appearance of puberty is retarded, we will frequently find as cause thereof either an abnormally large calibre of the arteries, or a faulty development of the heart, or both. Of course it will not be denied that a defective nourishment as well as a faulty formation of blood, or other causes, may also have sometimes the same effect with regard to puberty.

The relative sizes of the different organs suffer little alteration after the cessation of growth until with the age of 45 or 50 the blood pressure in all the arteries, except the carotids, commences to decrease. As a sequence of this we observe the turning gray of the hair, the atrophy of the subcutaneous tissue and the obsolescence of numerous capillaries.

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"A New Instrument for Removing Foreign Bodies from the Ear."

BY LOUIS ELSBERG, A. M., M. D., NEW YORK.

JULY 9, 1882, Mr. E., æt. 31 years, lawyer, suffering intense pain in the right ear, which was driving him, he said, nearly crazy, consulted me in so great a state of excitement, that it was only with difficulty I could obtain from him the account that he has been affected with naso-pharyngeal catarrh nearly all his life and is subject to occasional otorrhœa. Five days ago, after taking his morning bath, a plug of cotton wadding, such as he had often before placed into his ear and taken out, became impacted and could not be removed in spite of various maneuvers, including syringing, practiced until the present day by himself and a medical friend. For the first two days he felt only very slightly uncomfortable, but then quickly increasing pain set in, which antiphlogistic and anodyne remedies did not allay, and on account of which he had already taken ten hypodermic injections of morphia in three days. Speculum examination of the ear which increased the pain and was very nervously submitted to, revealed, at the bottom of the meatus, the wad which had been saturated with laudanum, oil, etc. The patient declared that he would on no account allow me to use the syringe or any instrument for extraction, except under anæsthesia. In a fractional part of a minute I had, by means of my delicate "screw-hook," removed the plug with no other pain than that caused by the gentle pulling of the auricle.

I should not have thought of placing this case on record, if I had not read on the same Sunday morning on which the patient came to me, in the DETROIT LANCET, June Number, p. 533, Dr. F. A. Kinne's account of "a new instrument for removing foreign bodies from the ear." (Perhaps I ought here to add that a leech, mustard on back of neck, and steam of chamomile tea rapidly succeeded in making Mr. E. comfortable.)

Dr. Kinne criticises a published lecture of Prof. D. B. St. John Roosa, and believes that "a minute, sharp-pointed, tenaculum-shaped hook" would aid the practitioner in removing foreign bodies from the ear. I think a hook such as the Dr. refers to might occasionally be useful, but the simple little instrument which I described, with a wood-cut, in the New York *Medical Record*, February 1, 1870, is far superior. It is a delicate double screw hook, the two little prongs pointing in different directions. It can be introduced and laid against a very delicate part without causing pain or injury. On twirling it around from left to right, the prongs try to bury themselves into the substance they rest against; on turning it from right to left it unscrews, taking no hold or letting go if previously fastened. Once seized, the foreign body can easily be extracted with it.

As to Prof. Roosa's lecture, I carefully read it when first published and was struck with its excellence. The three rules given, with the impressive explanations added, are by no means as insufficient as Dr. Kinne supposes. *In all but exceptional cases "the proper method of syringing the ear" is all-sufficient for removing foreign bodies and plugs of cerumen.* The criticism that can be justly made is that Prof. Roosa has not called attention in that lecture to all the necessary minute details of the method. I have no doubt he sufficiently impressed these, on more than one occasion, upon the students to whom the lecture was delivered, but the addition of two or three points of detail would have been very advantageous for the general practitioners who read the lecture. These points refer mainly to (1) the pulling the auricle so as to straighten the meatus, (2) the directing the stream of water so that the foreign body is washed outward, and (3) the examining the ear from time to time during long syringing, in difficult cases, so as to make sure of possible changes effected in the position of the foreign body and aiming the stream accordingly.

As to the exceptional cases, I may say that I have thus far been successful *in every instance* that has fallen under my observation with my "screw hook." I have during the past dozen years found this little instrument exceedingly useful not only in cases of foreign bodies in ear and nose, but also occasionally for making accurately localized applications to the ear, nose or throat. At the time of my first publication I claimed no credit of invention, but I have only since then ascertained that Biondi and Beaumont have recommended, for the same purpose, more or less similar instruments forty and thirty years ago. Their recommendations are long forgotten, and mine seems threatened with the same fate unless THE DETROIT LANCET can prevent.

Proceedings of Societies.

Proceedings of the Kings County Medical Society for August, Brooklyn, N. Y.

"Notes of Labor in Deformed Pelvis," by Chas. Jewett, M. D., Professor of Obstetrics, L. I. Col. Hosp.

CASE I.—FUNNEL-SHAPED PELVIS.

M. S., æt. 35 years, of Irish birth, primipara, at term, fell in labor July 3d, 1882. Dr. Jos. Healy being summoned July 6, finding the pelvic outlet too narrow to admit of delivery by ordinary means, requested the assistance of Dr. I. H. Platt and myself. When I reached the patient, about 12 P. M., I found the head on the pelvic floor, in occipito-anterior position. Here it was arrested by the inward projection of the ischia. The transverse diameter at the outlet was about three inches. The sub-pubic angle did not exceed 60°. The woman's pulse at this time was 130 and very feeble; the vagina hot and dry; the abdomen extremely tympanitic, and exquisitely tender on pressure. History of no fœtal movement for several hours; fœtal heart sounds not obtainable. Craniotomy was at once decided upon, and the operation was done by Dr. Healy. The cephalotribe was not available for crushing the head, as the space was too narrow to admit of locking the instrument without undue violence.

The child was a female of apparently not less than ten pounds. The head was large, and the bones of the cranial vault exceptionally hard and unyielding.

After the extraction of the fœtus, the uterus contracted firmly upon the placenta. Owing to the excessive tympanites, expression by the method of Credé was impracticable. The placenta was therefore removed by the hand in the vagina. So narrow was the outlet of the pelvis that the uterus could be reached only with the utmost difficulty. The placenta was found wholly separated but firmly grasped in a globular cavity formed by the contraction upon it of the upper segment of the uterus. The opening into this globular cavity was barely sufficient to admit the finger. The portion of the uterus below the point of constriction was trumpet-shaped, expanding gradually from above downward.

In brief, the case was a typical one of so-called hour-glass contraction. By carrying the hand up into the cervix, and slowly dilating the constriction with the fingers, the placenta was finally delivered.

The above case affords a good illustration of the real character of this accident now so well understood through the teachings of Bandl.

Hour-glass contraction was formerly attributed to paresis of a portion of the uterine muscular wall; in other words, to irregular contraction. Now we recognize in it the simple result of normal uterine contractions taking place upon a wholly imprisoned placenta.

During labor, normally, the greater mass of the uterine muscular fibers gradually gather into the upper segment of the uterus, whose walls. thus become very thick. The lower uterine segment is left extremely thin. The muscular ridge at the point of division between the two segments is the ring of Bandl. This point is at a greater or less distance above the true internal os-uteri. All that portion of the uterus below Bandl's ring, sometimes termed the obstetrical cervix, is generally in a flaccid condition for several hours after delivery, taking no part in the contractions of the third stage. If violent contractions now occur while the placenta is wholly in the upper segment of the uterus, the ring of Bandl is liable to be closed and the placenta imprisoned in the cavity above. The muscular action of the uterus which tends to expel the placenta when Bandl's ring is prevented from closing by a portion of the placenta lying therein, tends to imprison the placenta when it lies wholly above this point.

Obviously, the premature administration of ergot is liable to give rise to the above accident. Accordingly, in cases of hour-glass contraction, it is not infrequently found that ergot had been used during the second stage.

Despite the active use of restorative measures, the patient sank and died about sixteen hours after delivery.

AUTOPSY

By Dr. A. H. P. Leuf, who kindly furnished notes from which the following extracts were taken:

Body of stout build and well-rounded development; height, 57¼ inches; no spinal or other deformity apparent to the eye; spleen much softened; both kidneys fatty. Peritoneal vessels injected here and there over the uterus and a portion of the abdominal wall.

The chief object of pathological interest was the pelvis, which strongly approximated the male type. It was removed, and after the soft structures had been cleared away I obtained the following

PELVIC MEASUREMENTS:

Ilio-cristal	10¼ inches
Ilio-spinal	9⅝ "
Conjugate, at brim	3⅞ "
Transverse, at brim	4 9-16 "
Obliques, at brim, each	4⅜ "
Transverse, at outlet	3 1-16 "
Antero-posterior, at outlet	3⅞ "
Sub-pubic angle	58°

CASE II.—FLATTENED PELVIS.

In contrast with the above case is another which I saw in May last by the kindness of Dr. J. Corbin. The patient was a healthy German woman of 25 years, ii.-para, of full muscular development, having no spinal or tibial curvatures, but of exceedingly small stature—4 ft. 6½ inches in height. No history of rachitis. Diagnosis of flattened pelvis.

In her first confinement, she states, she was five days in labor under the care of a midwife and an irregular practitioner in New York. The child died immediately after birth.

In the second labor, the duration of the second stage was eight and a half hours. During this time the uterine efforts, which were of the most vigorous character, were expended in moulding the head and overcoming the obstruction at the brim. The brim once passed, delivery was accomplished in a single pain. Neither child nor mother experienced an untoward symptom during the lying-in period.

I obtained the following pelvic measurements after delivery:

External conjugate	6¾ inches.
Ilio spinal	8¾ "
Ilio-cristal	10 5-16 "
Internal conjugate	3½ "
Other diameters	ample.

The child's head presented the average measurements.

A well-defined groove over the left temporal region marked the track of the sacral promontory.

The wisdom of the doctor's course in withholding the forceps in this case was amply vindicated.

It is worthy of note that in this class of cases — slightly flattened pelves -- Nature boasts the best statistics—version stands next, while the mortality of forceps operations above the brim is something formidable.

Detroit Academy of Medicine.

FEBRUARY 28, 1882.

PATHOLOGICAL SPECIMENS.

Dr. Connor: I have a very interesting specimen to show. It was sent to me by Dr. Safford, of Plymouth, to present to the academy. The specimen, as you see it, is a stomach; this end is the cardiac end, and that the pyloric. At this point you will see an ulceration and a destruction of tissue; in the other parts of the membrane the thickness seems to be increased. A microscopical examination of it reveals nothing abnormal in the tissue. The ulcer is about two and a half inches from the pyloric orifice of the stomach. The opening of the stomach was made at the upper part of the lesser curvature; this ulcer lies in a line of the lower border of the greater curvature of the stomach near the pyloric end of it. The history is very singular; I shall simply repeat it as the doctor reported it to me, when I was at Plymouth performing an operation upon an eye. The patient from whom it was taken was a woman 79 years of age, nervous temperment; came under his notice two months ago complaining of vomiting; no pain; food would not go down; anything taken by the rectum would come up through the intestines and pass out at the mouth. Colored solutions came through almost unchanged. She finally died from exhaustion. I questioned the doctor very closely about the retroperistalsis. I also questioned Dr. Collier, who saw the case with him, and he verified the observation he had made.

The woman belonged to a family in which stomach difficulties have been the active cause of death for several generations. The position of the ulcer is such that anything that enters the stomach passes over it. It looked suspicious, as though it might be malignant. The rest of the organs, so far as a woman of that age is concerned, were perfecly healthy; no indication of disease anywhere else. The condition of the mucous membrane exhibited little congestion of the parts; they were relatively normal with regard to the destruction of tissue; it has not gone beyond the mucous membrane.

I desire to exhibit this eye which I enucleated about two weeks ago, and have kept it in a four per cent. solution of resorcin ever since. You see it is perfectly preserved, the vitreous still remaining clear. Resorcin has very powerful antiseptic properties, without the odor and offensiveness of carbolic acid.

In otitis media purulentia I use a three per cent. solution with excellent results in correcting the foetor and checking the production of pus. I formerly used other antiseptics, but this has some very admirable qualities. It can be given internally in doses of from fifteen to twenty grains. It is used for the same purposes as carbolic acid. It is not unpleasant to taste nor is it poisonous in reasonable doses. In the specimen exhibited I am able to show in place where it first lodged a very large foreign body in the eye; you will see the foreign body at the side of the specimen; it has not been torn from its attachment at all. You will observe that the broken lens and the rest of the cilliary body seems to be in place. The case shows that occasionally the eye is tolerant for a long time of a very severe injury to the cilliary body—from October to the middle of the following February. The history of the case is given in full in this number of the LANCET.

Dr. Noyes: The doctor's paper is interesting in describing the result of the lodgment of a foreign body in the eye. It seems to me this might have been a good case for the use of Greening's magnetic probe. Very many fragments of foreign bodies have been removed in this way; if it was not firmly fastened it could be brought out.

Dr. Connor: I thought of that, but it is evident from the location of the foreign body that a magnet would have been incompetent to have dislodged it from the firm attachments about it. Had it been in the vitreous humor, I should have been able to remove it by the proper magnet.

Dr. Noyes: I may say, as Dr. Connor has remarked, that injuries to the ciliary body, especially lacerated wounds, are so frequently followed by sympathetic trouble to the well eye, that it is always regarded as the most dangerous wound to the eye that can happen. I have, however, myself more than once had a case where the ciliary body was wounded, when it was not so much the fashion (if I may use the term) to remove an eye as is the case to-day, which was not followed by sympathetic trouble in the fellow eye; they had symptoms of sympathetic irritation such as increased lachrymation, etc. Nothing destructive to the vision set in; they have a good eye to-day. Now we all know that wounds of the eye and wounds involving the ciliary body as well, when followed by supuration are not followed by any sympathetic trouble whatever.

I had a case not many months ago,

illustrating this point very decidedly; a man working at the Junction was hit by a fragment on the eye, quite a large piece. The blow was so severe as to nearly knock him over; I closely examined the eye, and was able to trace the wound through the iris, I followed it and was satisfied that the fragment was in the eye and feared harm would follow to the fellow eye. He had great inflammation in the eye that was wounded, and pain. I urged him to have it removed. He objected but continued to visit my office, I put in atropia and made it as soothing as possible, and after a few days I again urged him to have it removed. He said he would come and have it done the next day. He did not come at all. After a number of days I thought I would go out and see what was the reason he did not come, when I found he was being treated by a *quack*, no doctor at all; he told me he was no doctor, but was very successful in said treatment of the eye. Well he was applying poultices, and I told him that would certainly bring rapid destruction to the eye already wounded and to the other eye also; but he was determined to stick to this doctor, so I left him, saw no more of him until a number of months afterwards, he came into my office and showed me the fragment of iron, which he said had dropped out of his eye after poulticing it a long time; it was a chunk of iron at least a quarter of an inch long. Under a long process of poulticing, the eye had shrunk up to a mere stump; though the ciliary body was extensively involved in the wound in consequence of suppuration, inflammation induced by application of poultices, was not followed by any sympathetic trouble.

Paper was now read by Dr. Wyman upon the relation of deformities of the skull to insanity.

Dr. Robertson remarked, while I was in the university there was a gentleman in one of the advanced classes in the literary department who had a decidedly deformed skull; he had what you might call a tempero-parietal deformity, his head was drawn up to a peak in that position. He had a very large deformity, you could notice it whenever he removed his hat. This young man at that time was in his sophomore year; afterwards graduated in the Latin and scientific department. He was an unusually brilliant man, had no unusual eccentricities. I never heard of his committing any particular crime since. I think with Dr. Wyman that this condition of the skull has nothing to do with the brain. A man may have peculiar deformities of the skull while his brain is well developed in every respect, and not developed in a peculiar line.

Dr. Andrews: I would like to ask Dr. Wyman if there is any record of a difference in the cavity of the cranium as a result of these deformities? Any statistics that it has this effect?

Dr. Wyman: I don't know, I have no figures.

Dr. Andrews: It would seem that it is not necessary that the encephalon should conform to a certain fixed shape, in order that all the nervous centers should be so developed as to form a brain symetrical and complete in functions, at least so far as to control a being of average intelligence, provided that the cranial cavity is of sufficient size and the brain possesses all the needed ganglia. So far as I am aware, within certain limits the size of the encephalon determines the intelligence of individuals; and we find that the size is usually coincident with intellectual force. Still I might instance a blacksmith in a certain place, who had no more than ordinary intelligence, yet his brain weighed two or three ounces more than Cuvier's. Deformities may be produced naturally or artificially, intra-uterine or after birth, without materially harming the skull for the development of the brain.

Dr. Gilbert: The question with us is this: how far this malformation is a guide, in our judgment, as regards insanity. We have all seen men of small brains who have good intelligence and judgment. It is the quality of the brain tissue more than the mere amount. As regards the question of insanity, which is of so great importance just now, whether these malformations produce the insanity or not. If a man is insane it is in the formation of the brain itself, and just in proportion as the deformation of the brain is indicated, we argue insanity. The point is this: A man has a deformed skull; knowing nothing of his mental calibre, can we judge whether he is insane or not? Of course we cannot. What is the brain for? What are its functions? When does it perform its functions normally? When a man has a bad liver he will secrete bad bile, or if we get bad bile we know there is a bad liver. I do not think, from what I read, that the formation of the skull has anything to do with the power of the brain. Certain brain quality argues a marked power of intelligence. I have seen men with large heads who have lacked organization, who have lacked moral qualities, and who have lacked mental stamina. I think it is unwise to judge of a man's insanity by the formation of his skull.

Dr. Maire: It has been fully demonstrated that the brain of man is greater in proportion to the size of his body than that of any other animal. The brain of the elephant is the largest among animals. Now, if I remember right, the brain of Cuvier weighed 62 ounces. He represents the highest type of civilized man, and the brains of the two Aztec children weighed 12 and 14 ounces respectively, representing the lowest type of civilization. Intelligence is not always found in a large brain: a large brain is not always indicative of a smart man. It depends upon quality of the brain cells. If the quality of the brain is good and the brain large, then the work will be effective; but in a man with a small head it by no means proves that his brain is not just as good. In a small brain there may be just as many brain cells, and it is the brain cells that do the work. In a small brain the sulci are deep, and there is more gray matter; in a large brain the sulci are not so deep. This is a point worthy of note.

Dr. Noyes: I don't know, Mr. President, that I can add anything more to what has been said upon the subject. I agree with most of the remarks that have been made upon this subject. I never have been ready to accept wholly the teachings of phrenology in regard to craniology. The shape of the cranium is no reliable indication of the quality of the brain or its mental force. I can readily believe that the formation or size of the brain is not all that enters as a factor into the case. The material out of which it is made, and the organization of this material must also be considered. Then again, the intellectual force of a great man will be in proportion as the brains are exercised or educated as a whole. Men of great intellect depend very largely upon what the doctor has just remarked, the depth of the sulci and amount of the gray matter within the cranium.

Dr. Brown: Mr. President and Gentlemen: It is my opinion that a man's intellectual capacity is not measured by the shape of his skull. It would be very interesting to me if Dr. Wyman could state, speaking of the malformation of the early Caucasians, what was their intellectual status, compared with that of the present time.

Dr. Wyman: I do not know that and cannot reply fully. I prepared my paper to show that it was hardly reasonable that all the world who practiced artificial malformation could be insane. The large numbers of skulls that were so deformed, shows that the custom was extremely common, if not quite general. It seems to have existed in one place and gradually spread to others. As to its effects upon the people, I have no knowledge. The savages in this country do not appear to differ in intellectual force from those who performed malformation.

Dr. Connor: While, as the paper says, there have been entire nations whose habit has been to deform the skull by external pressure applied during infancy and youth, there is no evidence to show that this deformity has produced any effect upon the sanity of the individuals subjected to it. Nor is there any proof that the mental characteristics of the individuals have at all suffered thereby.

But the case is quite different in the instances in which the skull has grown without any external molding force. In these cases is there any evidence that the shape of the skull determins the sanity of the person possessing the skull? If there be such evidence I have never seen it. Are we then to conclude that the shape of the skull bears no relation to the mental and other characteristics of the individual? By no means. Observations without number have established certain propositions. Thus persons possessing skulls broad above and behind the ears are invariably found to have strong will powers, to be persons of force and energy of character, persons who are ready to fight for what they possess or desire to possess. Again, persons having a broad, high forehead, and a narrow vertex, are found to be persons of thought in one or many respects, but they have little force of character. They are moved by the force of others, while they may lead by the power of thought. Persons having broad skulls from front to back, along the vertex are those who lead in thought, and physical force also. But beyond some very general propositions, such as the foregoing, we have none that command universal acceptance. We are quite too ignorant of that configuration of the skull which determines mental balance to be able to recognize or define its absence or the defect which constitutes insanity. Indeed, from the fact that so much of the brain tissue lies rolled up away from any relation to the skull and hence inaccessible to the outside, we can have little hope that the external forms of the skull will at all help us in the determination of insanity. For a long time yet, if not forever, we shall probably be compelled to rely upon other tests for this condition.

Incidentally it is worth remembering that the entire muscular system is related to the nerve cells of the cerebrum. The exercise of all the muscles of the body is absolutely necessary to the development of the entire brain. In short, brain culture calls for muscular exercise in considerable amounts and all the time. The union of this with book culture is essential to the growth and preservation of the integrity of the cerebral nerve cells. If sanity consists in the proper balance of the activities of all the cerebral cells then the preservation of sanity calls for constant muscular exercise within the limits of fatigue. If insanity is the loss of the balance between the exercise of the different brain cells then muscular exercise will enter into any rational treatment of the same. In short, a healthy brain, a well balanced brain, calls for constant exercise of every portion of it, and this calls for not only the use of the eyes, the ears, the sense of touch and taste, the powers of comparison, etc., but of the muscles of every limb and every portion of the body. The practical relation of these well known physiological facts to the prevention as well as the causation and treatment of insanity are most intimate and worthy of the most constant consideration, by both the people and the profession. In what we have said we wish it understood that we have had in mind simple exercise and symmetrical development of the entire brain. It is unquestionably true that constant and long-continued work of any particular portion of the brain will result in increased power of that part, and this will continue if only the rest of the nerve cells be frequently exercised. But unless this be done the over-development of one set of brain cells, called powers, is likely to distort and derange the action of the rest and result disastrously to the powers of the whole, especially to its integrity.

Dr. Gilbert: I would like to see the muscular development of the great masses. It is a fact that those men who have the best muscles have not always the best brain. My experience is, that strong intellects must be developed in that line; if in philosophy I must study philosophy. If I am to do one or the other I must follow that thoroughly and systematically. Among men of great intellects many have been men of very feeble bodily strength, and men of strong muscular development are often of very feeble minds. If a man wishes to develop a good muscle he must use that muscle; if he wishes to develop a good brain he must use that brain.

If a person wishes to get good muscles he developes those muscles to the fullest extent possible and in this way gets good muscles.

A race horse has its muscles developed in a certain line, but he cannot do the work of a draft horse. We develop certain kinds of muscles for certain kinds of work, because each man does not use the same muscles for every kind of work.

DR. JUDSON BRADLEY, President.
DR. MORSE STEWART, JR., Secretary.

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Health in Michigan.

For the week ending July 22, 1882, the reports indicate that whooping-cough, remittent fever, and erysipelas increased, and that influenza, puerperal fever, tonsilitis, consumption, measles, inflammation of the bowels, cholera morbus, pneumonia, cholera-infantum, and bronchitis, decreased in area of prevalence.

The uniform pleasant weather has been attended with a marked decrease in sickness; during the week, seven diseases increased, while eighteen diseases decreased in area of prevalence; and the average per cent. of decrease was greater than the average per cent. of increase.

At the State Capitol, during the week ending July 22, the prevailing winds were west; and, compared with the preceeding week, the average temperature was slightly lower. the average relative and average absolute humidity were slightly less, and the average day and night ozone were the same.

Including reports by regular observers and by others, diphtheria was reported present during the week ending July 22, and since, at 15 places; scarlet fever at 16 places, measles at 13 places, and small-pox at 10 places, as follows: at Detroit, Flint, Lansing (one case, convalescent), in the township of Burton, at Mt. Morris, and at Hastings, July 22, at Wayne County pest-house, at Deerfield, Lapeer Co. (one case), July 23; at Grand Rapids (12 cases), July 24; and at Westwood, ten miles north of Kalkaska, July 27. At Grand Rapids one man had small-pox who had it 16 years ago.

Sanitary inspectors report, for the week ending July 22, 15 cases of measles brought by immigrants arriving at Port Huron, and 6 cases of measles among those arriving at Detroit.

For the week ending July 29, 1882, the reports indicate that dysentery increased, and that bronchitis, erysipelas, intermittent fever, scarlet fever, and neuralgia decreased in area of prevalence.

At the State Capitol, during the week ending July 29, the prevailing winds were south-west, and, compared with the preceding week, the average temperature was higher, the average absolute humidity was more, the average day and night ozone were less, and the average relative humidity was slightly less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending July 29, and since, at 16 places; scarlet fever at 9 places; measles at 9 places; and small-pox at 15 places as follows: at Wayne Co. pest-house, July 23; at Westwood, Kalkaska Co., and at Mancelona, Antrim Co., July 28; at Flint (26 cases), at Lansing (one case convalescent), and at Detroit, July 29; at Deerfield, Lapeer Co., July 30; at Grand Rapids, and at Grand River, Kalkaska Co., July 31; at Crystal, Montcalm Co., at Mt. Morris, Genesee Co., Aug. 1; and in Ionia Co., as follows: in Orange township (14 cases), in Sebewa township (4 cases), in Danby township (one or two cases), and in the village of Portland (2 cases) Aug. 3.

For the week ending July 29, the sanitary inspector reports 6 cases of measles among immigrants arriving at Port Huron.

For the week ending Aug. 5, 1882, the reports indicate that cholera morbus, cholera infantum, and diarrhœa considerably increased, that puerperal fever increased, and that tonsilitis and whooping-cough decreased in area of prevalence.

At the State Capitol, during the week ending August 5, the prevailing winds were south-east; and, compared with the preceding week, the average temperature was slightly lower, but high, and the extreme moisture of the air prevented ordinary loss of bodily heat by evaporation, the average relative and the average absolute humidity was considerably more, the average day ozone was much less.

It thus appears that the increased prevalence of cholera morbus, cholera infantum and diarrhœa was coincident with a high temperature, a great increase in relative and in absolute humidity; also with a low atmospheric pressure, and a considerable reduction in the day ozone.

Including reports by regular observers and others, diphtheria was reported present during the week ending August 5, and since, at 20 places, scarlet fever at 8 places, measles at 11 places, and small-pox at 17 places, as follows: in Deerfield township, Lapeer Co., July 30; at Lansing (1 case, convalescent), July 31; in Crystal township, Montcalm Co. (4 cases), Aug. 1; in Rapid River township, Kalkaska Co. (4 cases), in Orange, in Sebawa, in Danby, Ionia Co., and in Mancelona township, Antrim Co. (3 cases), Aug. 3; at Mt. Morris, Genesee Co. (1 case, convalescent), Aug. 4; at Detroit (3 cases), Flint, and Portland (1 case), Aug. 5; in Walker township, Aug. 7; at Grand Rapids, Aug. 9; at Clio, Genesee Co., in Ionia township, and near Carson City, Montcalm Co., Aug. 10.

HENRY B. BAKER,
Secretary.

Lansing, Aug. 11, 1882.

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The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

What is the Best Method of Medical Teaching?

LIKE all teaching, that of medicine is an art, to be developed by observations, experiment and study. Many years ago the medical student entered the office of his preceptor and with him learned the details and principles of his work. He gradually became familiar with medicine by work at the mortar, pill tile, etc. He learned to fold powders, to make tinctures, syrups, etc. Gradually he learned the uses to which these substances were put by his preceptor. After a time the practical relations between certain morbid phenomena and certain drugs became perfectly familiar. He also saw how his preceptor met accidents of all sorts. He had fixed in his mind these facts by repeatedly dressing the wound himself. In so far as was then understood he learned the importance placed by his preceptor upon the relation of different conditions of the urine to morbid bodily states. The pulse, the tongue, the condition of the skin, etc., all were brought out in their several relations to different individuals affected with different diseases. All this was blended with reading from books, and with more or less constant quizzing. It was real instruction, real teaching of medicine. Farther he saw and practically learned how to deport himself toward different patients, etc. Fortunate for the medical profession will it be when each student shall be compelled, by the colleges, to pursue a similar course of personal instruction, in which actual practice in all its details shall constantly pass before the student's senses and through his mind as he pursues the teachings of the books. There is very much of the medical art that can be taught in no other way than by a personal teacher of a few students. With the enlargement of our medical knowledge it may not be possible for one man to do the work formerly done by the preceptor, but in the organization of a medical college there is no reason why the same principles may not be followed. That a college thus founded and executed would produce the best doctors there can be no question. A new college is to be started in New York city. From the statements of the men interested in it, we hope that something of this plan may be followed. The plan calls for personal teaching by an enthusiastic teacher or teachers. This makes the classes very small or the number of teachers very large. The difficulties of this arrangement are too well understood to call for farther description, but they are not insurmountable. Secondly the plan calls for the constant and most intimate blending of the demonstrative with didactic training. Laboratory work and quizzing upon this work, and from text books must begin together, and in a progressive manner continue till the end of the course.

Very soon the study of the natural phenomena of disease must be commenced and continued hand in hand with the study from books or lectures till the end of the course. In this manner the brain will be trained through the senses and the senses through the brain. The two sets of apparatuses will be brought into the most intimate fellowship, in all their activities, and the whole man enabled to concentrate all his powers upon his professional work. Medicine must be mastered by the mind through the senses. There has not been in the medical schools half enough training of the mind by the senses brought down to the original elements of study. The main study has been by the ear listening to the voice of some one who has seen in part for himself, but mostly seen in the books. In short, most of the training of the schools has been second, third or fourth hand. We trust the new medical school of New York will make the student get down to first elements, and take everything directly from nature in so far as is possible.

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Medical Legislation in California.

The isolation of California from other states renders it a favorable field for the testing of plans for the regulation of the practice of medicine. In the *Medical Record*, Dr. A. M. Wilder gives an account of the actual workings of a plan adopted some years since, which has greatly interested us.

As a result of the law regulating the practice of medicine there came into existence five legally established boards of examiners—one of the regular profession, two of factions of the homœopaths, one of eclectic, and one of a semi-defunct State Society which was resuscitated by the absolutely irregular element, the venereal advertisers, etc. From this it is clear that *every person*, regular, irregular or defective, desiring to practice medicine is placed upon an equal footing before the law.

As a result of this legislation he thinks "all unprejudiced observers will admit that the progress of the profession of that state has been retarded by at least twenty-five years." The establishment of a mixed board as in Illinois, or Canada, he thinks, would work badly. Legislation in individual states would in part be rendered ineffective in adjacent states. Hence he believes that we should seek for a national control of the multiplication of medical men, which all admit to be an evil of increasingly dangerous aspect.

Hence he suggests the following plan, free from any recognition of any irregular practice, and from legislators:

1. Let the National Medical Association, in connection with the Medical Corps of the Army and Navy of the United States, appoint a National Board of Examiners.
2. Let this Board in consultation with medical schools and state medical societies of each state appoint a State Board of Medical Examiners for the determination of the standard of the conferring of all degrees.
3. Ignore all medical schools and their graduates who decline to agree to such action.

This plan presents many difficulties, but after all we think it would, if well executed, bring the greatest relief to the profession. To bring into any harness sixty thousand medical practitioners scattered over the entire continent, upon which the sun never sets, to overcome the objections of opposing interests, the lions of indolence of many and the indifference of most, the hostility of not a few, within our ranks and of all outside of them, both in the laity and profession, this is a task from which very bold reformers may shrink, and cry out "Who is sufficient for these things?

At the same time we see no hope of better things in the near future from any other source. In so far as we have been able to see the results, as a whole, following attempts at regulating the practice of medicine by law, they have been more damaging to the profession than the previous liberty of license. Notoriously in political matters the lowest and worst elements generally rule, or at least so connect themselves with the better as to neutralize the powers of the latter for good.

If some such plan as that proposed can be made operative, we shall feel that the best has been done in the matter of regulation. But we despair of finding the ability to make it effective combined with the means and self-sacrifice needful. Meantime we can study the various schemes now experimentally put into operation to restrict the number of doctors practicing. In all of them while the plea is made that their motive is a love for the good of humanity, in securing for it the best possible doctors, all understand that the real impelling motive is the hardness of lot induced among the doctors by the immense multiplication of doctors. There are too many to get a good living from the people. Hence the desire to kill off some of the doctors. Curiously enough the effort has been and still is made to do this by the establishment of new medical colleges. The moving spirits in these enterprises hope in this manner to so distance their rivals, as practically to kill them off. Of course they flood the land with more doctors, and the general pressure is rendered greater in consequence. But so selfish has the contest become, that these do not care for the increase of the real difficulty if only they may individually profit from it. It is this spirit, a part of the spirit of a commercial age, that renders it difficult to suggest any remedy which will meet the indications for elevating the entire profession. How can this spirit be overcome? Certainly not by laws, nor by anything that does not restore a genuine love for the profession of medicine as opposed to the trade of medicine. The difficulty in getting even the needful legislation lies in the impression by the legislators that the entire matter is a "job" for some person or persons at the expense of the rest. To pass such a law they want to be well paid themselves, and the needful has not generally been forthcoming. In short, the same motives prevail in the enacting of this kind of legislation as of all other kinds. These motives are not creditable to the representatives of a profession such as the medical should be, and are not consistent with the maintenance of its power for good over the people. To convince the people that they do not exist will require the elimination from the profession of the appearance of such motives. This being manifestly impossible, other plans than legislation had best be devised.

The New Code of Ethics and the Newspapers.

However it may be said that the medical press, with but two or three exceptions, is opposed to the adoption of the new code of ethics, the secular press are as unanimous on the opposing side. From the Atlantic to the Pacific it has belabored the medical profession. Of all the hard names applied to the medical profession for its adherence to what it terms principle or law, it is difficult to determine which is the worst. Generally the secular press has been permitted to have the popular field all to itself. It was not induced to take its present position because of argument, and argument will scarcely cure it. A few have endeavored to beard the lion in his den. Thus in the Evening Post, of New York, Dr. Squibb has done good service in calling attention to some editorial errors. But so long as the newspapers, by their advertising patronage, and the nostrum mongers and all other isms are one in the use of the newspaper as a purely mercantile agent to get money without earning it, it is difficult to make headway against the combination. The great masses of the people read nothing but the newspapers, and hence the facts presented as such by them, and the reasonings thereon largely mould public opinion. This need not be so if only the physicians themselves in their daily rounds took care to educate their patrons in reference to the truth in the matter. But it so happens that most doctors do not regard it as a portion of their duties to thus instruct their patrons. Hence, having no other than the guide of the newspapers, they fall into the use of all sorts of advertised medicines and isms. So ignorant are they that they think they understand themselves physically and all their disorders. The secular press encourages this ignorance and offers its own columns as affording the means by which they may exercise their own choice in the relief from their diseases. On all sides it is taught to the people that there is no principle dividing the regular physician from others and from patent or copyrighted medicines.

So completely has this been ground into the public mind that a considerable number in the profession have adopted the same notion and upon it have founded the new code of medical ethics. The same fact is farther shown in the resolution introduced into the United States Senate by Mr. Cameron. If there were no principle at stake then this resolution is proper, but so long as a principle founded in the very nature of the human mind is at stake in the matter of refusing consultations with all irregulars then we must hold the ship.

There seems to be no sign that the profession will yield its time-tried and time-honored principles for any reason thus far adduced. A very excellent contribution to the discussion, is from Dr. Squibb, in the July *Ephemeris.*

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The Position of the Army and Navy Respecting the Conditions of Admission to their Medical Staffs.

The homœopaths, emboldened by recent victories in New York, have sought for definite reasons why they were not admitted to the medical service of the army and navy of the United States. The navy answers thus: "No discrimination is made in favor or against any school. The only requirements of the department are that the candidate, in addition to his moral and physical qualifications, shall possess the necessary professional and literary knowledge to pass the established examination."

The war department, by the surgeon general, J. K. Barnes, answers thus: "The term 'regular', as applied to a medical school, has no relation to its legal standing, but indicates that its teachings are not confined to the doctrines of any sect. It does not apply to a school that professes to teach homeopathy or botanic medicine only." "The knowledge which a medical officer of the army should possess to enable him to discharge his important and responsible duties, and to use the means of treatment provided by the department, can only be obtained at a regular medical school, and it is not considered worth while to waste the time of the army medical examining boards or to induce young men to incur useless expense by extending invitations to appear before such boards to those who cannot furnish evidence that they have at least had an opportunity to obtain the knowledge required." "It is not considered desirable to introduce in the army the practice of homeopathy, hydropathy, botanicism, physico-medicalism, or any other sectarian or exclusive system of medicine."

"The fact that a candidate has a knowledge of any or all of these dogmas would be no bar to his admission to the medical corps of the army, but the fact that he avowed his adhesion to them or some one of them would indicate that he is not suited to the position of a medical officer, nor in my opinion would he be acceptable to the large majority of those for whom medical attendance is provided by the government." Such is a portion of the correspondence published by a leading homeopathic journal. Certainly the definiteness of the position held by these departments leaves nothing to be desired It would seem to accord with simple common sense to even the non-professional mind. But no doubt the matter will be brought up in other forms at a future time.

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A Conscientious Doctor.

The late death of Dr. Geo. B. Winston of St. Louis, Mo., serves as the occasion for the Courier of Medicine to publish among other things the following:

"A friend once remarked to him: Doctor, what necessity is there for this ceaseless labor and study at your time of life?" With a look of astonishment, never to be forgotten, he replied: My dear sir I am under bonds to do it. When I offered my professional services to this community, there was an implied covenant on my part that, so far as God gave me strength and ability, I would use them for gathering up and digesting all that has been said or written in regard to the diseases to which human flesh is heir and if I should lose a patient because of my ignorance of the latest and best experience of others in the treatment of a given case, a just God would hold me responsible for the loss, through inexcusable ignorance, of a precious human life and punish me accordingly; and whenever I get my consent to be content with present professional attainments, and trust my own personal experience for success, I will withdraw from practice, and step from under a weight of honorable obligations, which with my best endeavors to meet them honestly and conscientiously, still sometimes is almost heavier than I can bear."

It is rare indeed to meet anywhere with a conscientiousness surpassing the foregoing. Certain is it that the practice of medicine would advance more rapidly to perfection were all physicians governed by the same exacting principles. There would be far more study in the library, in the sick room, in the laboratory, alone and in societies, and there would be far less loafing in the store, and other less reputable places, and finally there would be infinitely less gossiping everywhere. Good fellowship everywhere, kindness always, energy and firmness in the right and against the wrong would characterize all the physician's doings. Perhaps there is no calling which from its commencement to its end more thoroughly demands the utilization of every faculty in the pursuit of its every day duties, than does that of the doctor. Unless there is a conscience to keep him constantly at work, the habit of sloth and ease creeps over and makes him its slave. The best work is done at the conscious or unconscious bidding of conscience enlightened by reason.

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A View of Regular Practice as Seen by Homœopathic Eyes.

Dr. Pearson, in the *Homœopathic Physician*, gives expression to his views as to the compatability of the regular and homœopathic practice. It has been held by some sections that the homœopaths were ready and anxious to affiliate with the regulars. Hence our New York friends desire to be permitted to take them in. The great mass of the regular profession (and so far as can now be seen even in New York State), believe that the association of these bodies of men is neither possible nor desirable. The same view holds among the homœopaths who really practice homœopathy. Thus Dr. Pearson says:

"There is between the homœopathic and regular schools an impassible barrier. While the latter have discarded the larger doses of former years, they have by the assistance of chemistry been able to increase their potency. Did homœopathy consist only in small doses as weighed in *regular* scales, then there were no homœopaths. Homœopathy consists in such use of drugs as shall remove the cause of the disease, and so really cure the disease, while the regular practice simply treats the symptoms. So long as oil and water refuse to unite; so long as heat and cold continue to be opposite extremes; so long as light and darkness or truth and falsehood remain antagonistic, so long both in theory and in practice will the homœopathic differ from the regular school."

Holding these views, the writer and his associates as violently oppose all attempts at union with the opposing schools as the honest among the regular profession, who, in like manner, believe respecting other schools.

To hold principles such as distinguish these sects, and not to live up to them, is manifest dishonesty, but to live up to them is to forever live separate from even the outskirts of the regular profession. The only possible basis for union is the renunciation by the advocates of exclusive systems of their distinctive names, and the entering of the ranks of doctors, to try, if they have any knowledge or skill, to make it felt in molding the thoughts and practices of doctors, not of homœopaths, eclectics, etc. Such renunciation is not possible to those holding views like those of the writer whom we have quoted. The sooner all parties recognize the substantial truth that the conflict between regular medicine and all isms or pathies is "irrepressible," the sooner will truth be established.

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One of the Relations of Physicians to the so-called Medical Charities.

From its own knowledge the *Medical and Surgical Reporter* gives the following: "A woman afflicted with an ovarian tumor desired to be operated upon by a certain surgeon. He advised her to take a room in the hospital with the surgical staff of which he was connected. This lady's husband was sufficiently wealthy to enable him before the operation to give $15,000 in charity and to pay some twenty or twenty-five dollars a week board for his wife. The operation was performed and the surgeon was compelled in person to dress the wound twice daily. He sent in a bill for $500, which was refused him on the technical ground that because he was a member of the staff (from which he received no remuneration) he had no right to charge any inmate of the house, even though, as in this case, the person in question was a private patient, sent to the hospital for good nursing. The courts of law took such a view of the case as gave the doctor his bill. The hospital authorities sustained the patient and dismissed from the staff the doctor." Such facts as the above are well known to all who watch the careers of the several clinics and hospitals. Doctors complain, and, as in this case, an occasional doctor kicks against the system which robs him of a fee properly belonging to him. But it does not matter; while the system remains the abuses will continue. Only by the abolition of the free hospitals and the free clinics will we be able to escape the abuses thereof. One is sometimes tempted to think that the latter alternative would be a gain to both the people and the profession. There is no fear but the sick poor would be well cared for by the young physicians waiting for practice if not by the older ones. All sorts of schemes have proved futile to prevent the well-to-do and even the wealthy from receiving for a charity the services of those attending free hospitals and clinics. The young physician loses the small fee and the practice which naturally would fall to his lot did not these free institutions exist. He is the poorer in his pocket and in his training. The older physician loses many cases and much practice, and hence is at least the poorer in his pocket. The public become demoralized in learning that they can get the best of medical or surgical work done for nothing. Hence they either beat down their regular medical attendant or leave him altogether. Thus it appears that as a whole the medical profession suffers loss of money and training. A few, perhaps, get better training at the expense of the whole.

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The Present Relations Between the British Medical Association and the Editor of its Journal.

Inasmuch as the editor of this journal has been alluded to frequently in connection with the enterprise of establishing a medical journal for the American Medical Association, all facts pertaining to the former relationship is of interest.

Dr. Fothergill in a recent letter to the *Medical Times* makes the following statements: "At present the British Medical Association is paralyzed by the antagonism existing between the present editor of its journal and a large section of its members. The editor has a weakness for advocating his own opinions, apparently rather because they are his own than because they are worth something in themselves. Thus he has taken up the whim that it is desirable that medical men be made to notify every case of infectious disease they see to the sanitary authorities, or if they fail to do so they must be fined. Hence, if a small tradesman's servant girl has the itch, she cannot go to the doctor without the sanitary authorities being formally made aware of the fact, with what consequences to the small tradesman those acquainted with village life can best tell. The editor is a Londoner and knows little of the nature of a doctor's work or his position in a rural community, but he is fully aware how an editor can push himself and his views when he breathes the breath of life into the mouthpiece of a great association. But this time he burned his fingers. An association is being formed, 'having for its simple object to oppose the organized attempts that are being made to compel medical men, under penalty for default, to notify the authorities without exercise of any discretion, of cases of infectious disease.' In other words, an association is being formed within the British Medical Association to counteract the policy of the editor of its journal, who at the same time is chairman of the Parliamentary Bills Committee."

Under these circumstances the editor is likely to have a lively time at the next meeting of the association unless he beats a retreat. Thus it appears that while he is confessedly a good editor, he does not always work as the mass of the association desires. We shall watch the issue with interest.

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Memoranda.

A new medical college at Toledo, Ohio, is promised.

Dr. Andrew Buchanan, professor of physiology in the University of Glasgow died July 9th, aged eighty-four.

It is stated that about six hundred bodies are annually dissected in Berlin.

Dr. N. Kerr, says that about forty thousand deaths from intemperance annually occur in Great Britain and Ireland.

A Buffalo, New York, apothecary has been arrested for dispensing some syrup of Dover's powder prepared by himself.

During the month of July the death rate of Detroit was 22.22 per thousand of the population per annum.

The price of the *Medical Gazette* has been raised to one dollar and fifty cents per year.

On August 1st, the University of Wurtzburg celebrated its third centennial jubilee.

There are ten medical schools in the Dominion of Canada. The last one organized was at London. Three of these schools are French, the rest English.

Boro-glyceride has been patented. It is held that the patentee will hold his rights only to secure him the sole right of using the compound in preparing and transporting beef, etc., on a large scale.

The Connecticut State Medical Society and the State Board of Health unite in pray-ing the existing coronor system be abolished and a medical examiner system like that of Massachusetts be established in that state.

The *Peoria Medical Monthly* says that a Chicago medical teacher in a lecture remarked that he had noticed that in sterile women the mons veneris was covered with straight hair. A student inquired whether curling the hair would not cure the sterility?

At the close of the experiments testing the protective value of Pasteur's inoculated bacillus anthracis, in Hungary it was found that 14.5 per cent. of the vaccinated and 94 per cent. of the unvaccinated animals were dead. Hardly a success thus far.

The *Medical and Surgical Reporter* in speaking of the Garfield case says: "It has been a series of blunders, misstatements, and quarrels, beginning with a flagrant violation of professional courtesy, and concluding with an effort to dodge the blame of a slovenly conducted post mortem."

It is claimed that the sales of "St. Jacobs Oil" amount to over two millions of dollars a year. Dr. Squibb says that its enormous sales relieve a great many people of their money who are poor only in common sense, and who take their medicines as they do most of their other deceptions, namely, by being advertised into them.

Mr. Geo. C. Booth, recently said "that the wealthiest and most prominent church corporation in New York city has scores of tenement houses which are in the foul condition he describes so vividly, and that the church corporation exacted last May ten and fifteen per cent. increase of rent under pain of eviction, instead of spending some thousands out of its millions in remedying such monstrous evils.—*Med. News*.

Dr. D. Halderman reports the case of a brain weighing sixty one ounces. It was that of a man who during life was never regarded as having much intellectual brightness but was of a reserved and thoughtful disposition. He was illiterate but by labor as a farmer he managed to accumulate some little property. He was six feet high long ape-like extremities, thick lips, protuberant lower jaw, high cheek bones but lofty and expanded frontals. He was a mulatto.

The *Atlantic Medical Register* delivers a lecture upon the graduating by an old and well known medical college of a notorious nostrum vendor. Unquestionably his sales of his secret nostrum will be enhanced by his possession of a diploma. But it is a spectacle for sorrow that any medical men should consent to place their signatures to an endorsement of such a man. But as one of the most eminent in the rank of medical teacher says, "it is the pocket that prevents better things."

A death from chloroform is reported in the *British Medical Journal*, July 1st. It occurred in St. Bartholomew's hospital. No reason was found for the death. Dr. Kinlock of Charleston, S. C., reports a case recently from the same cause. Every effort was made to save the patient without avail. Unfortunalely for all concerned some person or persons availed themselves of the occasion to publicly attack Dr. Kinlock through the secular press. But among the profession he has not only been exonerated from blame but sympathized with on account of his misfortune.

Dr. William Alexander, in the *Brain* makes a further contribution to his method of treating epilepsy by ligature of the vertebral arteries. In all he has operated upon twenty-one cases. Three have been quite well for nearly a year. Nine have been free from the fits so long that a cure is likely to result. Eight have so much improved as to justify the operation were none of the results better. One died in a fit, as happens to all epiletics occasionally. He only recommends that treatment after all other measures have been fairly tried and failed.

Dr. Englemann says that among some Indian tribes the following oxytoxic remedy is employed: "In a case of slow labor the patient is brought out on the plain, and a noted chief of the clan, mounted on his swiftest steed, with all his war paint and equipments, charges down upon her at full speed, turning aside only at the last moment, when the patient expects to be pierced through the body and trampled under foot. The alarm caused by this proceeding is stated to have caused the immediate expulsion of the child."

Dr. E. W. Jenks, formerly of Detroit, has resigned his position in the Chicago Medical College and established a private hospital for the treatment of the diseases of women in the suburbs of Chicago. Being unhampered by the demands upon a public teacher he will be able to make the most out of his enterprise.

On August 1st, died at Cincinnati, Prof. W. H. Mussey, æt. 64 years. Since the close of the war he has held the chair of surgery at the Miami Medical College. As a memorial to his father he gave to the Cincinnati Public Library 5,000 volumes and 2,500 pamphlets. During the war he was prominent for his services to the Union cause.

The July issue of the Ann Arbor *Medical Journal* contains a very pointed answer to Dr. Pratt's paper read before the late meeting of the Michigan State Medical Society. Without entering into the controversy between Dr. Maclean and Dr. Pratt, the paper referred to seems to us, to put it mildly, too undignified for a scientific man. It is very entertaining reading to those who do not object to such personalities.

Dr. John I. Ligget, in the *Medical Gazette*, develops the idea that the present form of dress of men overheats the genitals and so induces a hyper-activity of the same, resulting in a want of control over the sexual impulses. The solution of the problem of sexual excesses he places in "ventilation" of the genitals. Light clothes, and if drawers, have them perforated about the testes.

Dr. Johnathan Hutchison says that nineteen-twentieths of the cases called "sciatica" are only cases of arthritic disease of the hip. The diagnosis of true sciatica is to be based upon the discovery of tenderness restricted to the trunk of the nerve and involving a considerable part of its course. Examples of this are decidedly rare and their recognition a matter of difficulty.

Dr. J. G. Westmoreland states that he resigned from the Atlanta Medical College because he objected to the policy of the faculty in taxing the students and faculty with full fees for a young man to act as clerk for the dean and whipper-in for the college. He refuses to permit his name to be used as an emeritus professor

Dr. Kohn reports the successful passage through the alimentary canal of a woman of three spoons, 5⅞ inches long and 1¼ inches broad at the bowl. They were five weeks in making the passage, and were attended by alternate attacks of diarrhœa and constipation. They were taken during an attack of melancholia for the purpose of suicide.

Almost the same mail which brings us tidings of Mr. F. M. Balfour's election to the professorship of Morphology in the University of Cambridge, England, brings the news that he has lost his life during a trip among the Alps. As a scientist he had won early and lasting renown, in his special field of investigation. As a man and friend he was held in the highest regard by all who knew him.

According to Dr. Squibb, "St. Jacob's Oil" is a badly made aconite liniment. It consists mainly of water, ether, alcohol, turpentines and a small proportion of aconite, with red coloring matter. As a means of making money for the enterprising merchants who own it, it certainly is not a delusion or a snare.

The *Medical and Surgical Reporter* says: "Let the young doctor select a place in which free dispensaries and hospitals are scarce, one in which the prices of the leaders in the profession are high; in such a place, with proper personal and professional qualifications, there is a fair prospect of success."

The "living skeleton" of the museums and shows is dead. The medical men who attended him say that the cause of death was exhaustion from want of nourishment. It was claimed that the thoracic duct was so obliterated that no pancreatic juice could enter the circulation (sic).

A patient operated upon by Mr. Thomson, of England, for aneurism, by ligature of the innominate artery, died on the 43d day. This case is said to be next to the successful case of Dr. Smyth, of New Orleans. Dr. Smyth is still a long way ahead of his rivals in this operation.

The Longmans, of London, Eng., announce the issue in October of a Dictionary of Medicine, which has been several years in course of preparation. It will be a volume of over 1,800 pages. Its editor has so revised and altered the text as to bring it down to the time of real issue.

On July 6th died Prof. N. Friedreich, in his 57th year. The cause of death was the rupture into the pleural cavity of an aneurism of the aorta. He is well known in this country by his articles upon diseases of the heart, in Virchow's hand book, on diseases of the larynx and nose, and a paper on the diseases of the pancreas in Ziemssen's Pathology. He was a teacher in the University of Warburg, and afterwards in the University of Heidelberg, of pathology. In the latter place he also founded the *Psychiatric Clinic*.

As an illustration of the value of the statement "that a good proportion of intelligent people employ homœopathic physicians," is the following: Dr. Forbes visited Paris in 1842, and learned that with the elite of the city a certain nostrum was held to possess astounding virtues. By means of some money he bought the formula for this wonderful nostrum, and found that it consisted "of a decoction of flint stones."

Dr. Page, in the *Boston Medical Journal*, presents some observations which, he thinks, prove that "some females break down under the tear of life rather than its wear, and others from the ennui of life, so that honest work and honest teaching, like all honest mental work, are absolutely conducive to sound health."

At a late meeting of the Jasper County Medical Society resolutions were passed stating that the Joplin College of Physicians and Surgeons, of Joplin, Mo., had issued diplomas without conforming to even the lowest standard of medical colleges; that it had no legal existence, not having conformed to the legal requirements of the state, and hence that neither professors nor students were worthy of professional recognition.

The Cincinnati *Lancet and Clinic* publishes the following, copied from the records at the old South church at Boston, Mass.:

BOSTON, August ye 13, 1776.

These certify that Ebenesor Stimson has been so soaked and cleansed as that in our opinion he may be permitted to pass into the country without Danger of communicating the Small Pox to any one.

JOHN SCOLLAY,
NANH'L APPLETON,
Selectmen of Boston.

At a late meeting the Homœopathic Medical Society of Lancaster, Pa., resolved, "that it is the sense of this meeting that since the practice of homœopathy has established for itself an honorable estimation of itself by the community, against all the opposing forces the old school could bring to bear against it, there is no advantage or prestige to be derived by homœopathic physicians in consulting with regulars, and therefore the late action of the regular medical society of the State of New York in resolving to consult with us in future was entirely gratuitous."

The publication committee of the Ohio State Medical Society has determined (1). To give each author fifty neatly bound reprints of his paper. (2). To secure for each paper any necessary engravings, provided the drawings are furnished by the author. (3). To allow each author to publish his paper in any medical journal he may see fit, provided his paper be examined and approved by the committee, and that he furnish a written or printed copy for the committee within thirty days after adjournment. It is hoped that these inducements will secure to the society at its next meeting a large number of excellent papers.

From July 1st to July 25th there were reported to the Boston Board of Health eight cases of death from tetanus following toy pistol injuries. No case has come to our notice in which tetanus induced by this cause has resulted otherwise than in death. The exact reason why such wounds so frequently are followed by tetanus, is as yet not apparent. It is held by some that the peculiar chemical compound which produces the explosion operates thus damagingly upon the nervous system. Others claim that the harm comes from the peculiar manner in which the wound is made.

The British *Medical Journal* concludes an extended discussion of the law relating to malpractice thus: "the law of malpractice is too favorable to quacks and very stringent against legally qualified physicians and surgeons. Therefore while it tends to increase the number of charlatans, and to thereby endanger the lives and health of the people of this country, it renders the difficulty of licensed medical men proving their inculpability for the offense, if accused of such before juries, greater than it reasonably should. It is to be hoped that a statute law will be provided to materially diminish if not to entirely repress this evil."

Prof. C. Braun of Vienna, thinks that hyperemesis is not a proper cause for the production of artificial abortion. He has never seen a case of death from this cause, and believes that they can be kept within safe limits by proper means. In a case reported he afforded relief by the application to the cervix uteri of a ten per cent. solution of nitrate of silver. In France where the operation is frequently done for this purpose, the vomiting is relieved in only about forty per cent. of the cases, while ten per cent. of the cases are fatal.

Dr. Sutton advocates the establishment in Pittsburg of a medical college. He says "that to-day no talent, however good or cultivated, is allowed to find employment excepting through the cliques which manipulate the consultations of the city. These cliques have made it as hard for a young man in Pittsburg to acquire professional patronage as to enter the kingdom of heaven. A good medical college would forever settle all this business." Perhaps Dr. Sutton is correct, but we doubt it, reasoning from the data that have come under our observation. The same writer says "that gynæcology cannot be successfully practiced in a general hospital."

J. T. W., in the *Medical Times*, has recorded some of his observations made at Koch's laboratory, thus: "The only possible cause of tuberculosis is the bacillus tuberculosis, and as this bacillus for the most part disseminates itself in the sputum, it will be only necessary to destroy the sputum to check, if not arrest the disease. The proof of the poison in the sputum is now at hand, and so soon as it filters down through the profession to the masses of the people, the disease will have had its day."

Dr. Law, in a recent paper, thinks that "milk sickness" has not received the attention its importance demands, because its source is mainly in certain back woods districts, and it disappears before the advance of agriculture. Such districts are rarely penetrated by those contributing to medical literature. He shows that milk sickness closely resembles anthrax in its source in unimproved marshy localities and in its communicability to animals. But it does not have the specific lesions of anthrax. It spends its energy upon the nerve centres, producing great hebetude and loss of muscular power. Dr. Phillips finds in the blood a species of spirillum like that seen in relapsing fever. The germs are probably derived from the drinking water or from certain vegetables. Dr. Law thinks that we are dealing with a micro-organism which has developed pathogenic properties and can be reproduced indefinitely in the bodies of living animals. The danger of this affection lies in its conveyance through flesh, milk, butter and cheese.

The Boston *Medical Journal* has some severe strictures upon the water supply of that city. Pure water can only be had by the rich who can afford to buy it of private parties. The poor, by the bad water furnished by the city, are encouraged to drink whisky. Before the present water supply of the city was obtained it had been demonstrated that the flooding of Lake Cochituate meadows had been followed by polluted water. Then the chief engineer of the city warned the authorities of the certainty of that which has already occurred. But politicians drove him from the city, established the water supply according to the profits of themselves, without any reference to the health or comfort of the people. They constructed the Sudbery reservoirs so that very many acres of shallow water cover turf rotting away slowly, thus furnishing the conditions for the growth of low forms of aquatic life, and a bottom of nasty filth instead of clean gravel. As a result the citizens have been compelled to drink bog water, sometimes pretty good and often very bad, just as it is mixed with greater or less proportions of decent water. The same conditions also furnish the nidus for the growth of those peculiar plants whose existence is the source of such a nasty smell and taste to the water. Too much politics in the water board make bad water.

The Board of Regents of Michigan University heard all the charges against Dr. D. A. Joy, and stated that nothing had been proved against him inconsistent with his remaining a teacher in the University. Two members of the faculty at once hand their resignations to the regents to take effect if Dr. D. A. Joy be not dismissed from the University. The regents meet and order Dr. D. A. Joy to either resign or be deposed on the 10th day of August. From this series of facts it would seem as if these two professors were running the Medical Department of the University. No doubt this is very satisfactory to themselves, but it places the regents in rather an indifferent light. Here again the bane of politics comes in to decide questions pertaining to the conduct of a great university. If the above was the only occasion on which similar bulldozing had sufficed to manipulate the affairs of appointments at the University, we would have not thought it worthy of mention. We have no ax to grind and no personal interest in any of the affected parties, but we have a Saxon love for fair play, and we do not see how any teacher at the University is likely to get fair play and maintain his manly independence. If he happens to offend a couple of prominent professors, and these say to the Board of Regents, if you do not put this fellow out, we will leave the University, at once the political friends of the prominent professors buzz about the regents, a meeting is held, and the younger and less important teacher is told to pack up and leave.

A cubic foot of air weighs at 60° F., barometer at 30 in., 536 grains, or a trifle more than 1.2 ounces av.; 13.06 cubic feet of air, therefore, weighs one pound. About 65 cubic feet of air furnish one pound of oxygen gas. A room 9 feet high and 12 feet square contains, at the above mentioned temperature and pressure, about 100 pounds of air, and a room 40 feet square and 16 feet 4 inches high contains about one ton of 2,000 lbs. For every 5° F. above 60° within the ordinary ranges of the thermometer, the weight of the same volume of air is diminished about one per cent, and for every 5° F. below that temperature the weight is increased by the same amount. A variation of 0.3 in. in the reading of the barometer necessitates also a correction in these figures of one per cent. An elevation above the sea level of about 375 feet would of course have a similar effect on the mean weight of a given volume of air.

The quantity of carbonic acid gas exhaled in one hour by a healthy man is about 288 cubic inches. The quantity of fresh air necessary to dilute this sufficiently for perfect hygienic requirements is 3,000 cubic feet. For perfect ventilation a room should be supplied therefore with 3,000 cubic feet of pure air every hour for each occupant.

A gas burner consuming four feet of coal gas per hour throws into the atmosphere as much carbonic acid as 13 men. For every such burner there should be, therefore, supplied to a room not less than 13,000 cubic feet of fresh air, and even with this supply the proportion of carbonic acid will rise to one part (volume) in 1,000. In order to keep the proportion of carbonic acid to the strict limit of six parts in 10,000, each gas burner must have not less than 40,000 cubic feet of fresh air. If gas is used for cooking purposes, the products of its combustion should not be allowed to escape into the room. To say nothing of carbonic oxide, the carbonic acid from one of these stoves, consuming 25 cubic feet of gae per hour, is equal to that from the lungs of 80 men.

THE LANCET is on time this month. This is to be the rule hereafter, and not the exception. The delays heretofore have been not without excuse, but there seems to be no reason why their causes should recur.

Editor's Book Table.

Detroit Board of Health. First Annual Report.*

At last Detroit has wheeled into line and established a real Board of Health. The report before us makes an exhibit in which our citizens may take an honest pride. The excellent health officer of the Board, Dr. Wight has with more or less thoroughness investigated very many of the sources of disease, and the laws bearing upon the removal of the same. Where the proper ordinances do not exist he has recommended the proper ordinance for the assistance of the law makers. Thus we have fully discussed, from a working stand point, the management of contagious diseases, the sewerage of the city and of the houses, slaughter houses, the ice supply, the milk supply, the smoke nuisance, the glucose factory, and the water supply.

Concerning the management of small-pox, in addition to the vaccination of all the people the health officer recommends the erection of a hospital for the care of the small-pox patients so constructed as to destroy all emmanation from the sick before they reach the external air. He recommends the sale of the Grosse Point Hospital and the erection of one near the city, according to a plan drawn by himself. An account is given of every case of small-pox occurring in the city since he began work for the Board. While he finds the sewerage of Detroit excellent for the circumstances under which it has been constructed, he recommends the early consideration of the establishment of a separate system for the discharge of all house slops, water closet material, etc., everything except the rain fall and ground drainage. This latter could easily be accommodated by the existing sewers. We think he is correct in this recommendation. The size of the water tight sewers that convey away the sewerage from the inside of the houses will need to be about the same as the size of the pipes which bring water to the houses. Only that system needs to be perfectly tight which conveys the sewerage from the inside of the houses. This should be so constructed as to convey, without loss or addition, its contents directly into the river, so rapidly that decomposition could not occur. This being done the sewers for the drainage of the land and

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FIRST ANNUAL REPORT OF THE BOARD OF HEALTH of Detroit, 1882. Paper pp. 270. Detroit Post and Tribune Job Co.

streets and roof during rainfalls, melting snow, etc., would not call for such expensively constructed tubes, since it would be desired to take in the water from the ground about the pipes as well as conduct the water long distances into the river. We should be delighted if this report would made such an impression upon our citizens as to induce them to begin at once the development of the extra system of sewerage. Meantime as this is doubtless impracticable, at least could not be put into operation for a considerable time, he suggests to the city council a draft of a law meeting the most obvious remedies for existing defects.

On investigating the slaughter houses he finds all of them situated within the city limits, most of them as well kept as it is possible to keep such houses, but some are in a very dangerous condition. He suggests the building outside the city limits of a common slaughter house, at which, under proper restrictions, all slaughtering shall be done. In this way the several nuisances will be removed from the city, and the convenience and profits of the several butchers greatly increased. It strikes us that but little thought will convince even the butchers that the scheme will be for their separate interests and for the good of the city at large. It simply needs some enterprising man to organize the enterprise and it will be effected. A bill is drawn up for the incorporation of such an organization. He also shows that the city ice supply ought to be obtained from places entirely free from all polluted water. He also gives the outlines of an ordinance to prevent the sale of impure milk, an act which should be at once adopted.

To get rid of the smoke nuisance, which increases as the manufacturing establishments of the city develop and multiply, he has drawn up an ordinance which should be at once made a law. An investigation of the water supply shows it to be not only abundant but of exceptionally excellent quality. In fact it is found to be purer than the water supply of any other large city in America It is with great satisfaction that we lay down this work. There is no question that the same enterprise and good judgment will continue to ascertain and eliminate every cause of needless ill-health and mortality among the citizens of Detroit. Most of the causes of disease mentioned have their origin in the inevitable confusion that results from the gradual growth of an old town from a village into a city, and from the imperfect devices for preserving health incident to the imperfect knowledge of former years. In spite of the fact that Detroit has never had any sanitary supervision of a systematic scientific character, it has maintained its place among the healthiest cities of the land. But its opportunities are capable of rendering it far more healthy, if only they are utilized by our citizens. From their pride in the health of their city we think it certain that they will gladly remove as fast as practicable every source of avoidable disease.

Medical Society of West Virginia's Transactions for 1882.*

This volume includes the transactions for this and last year, and both together complete the regular volume of transactions which is concluded by a full index of all the separate parts. Among the points of note of general interest are first the resolution of the society to stand by and defend the Code of Ethics of the American Medical Association and second the determination to wage war against the settlement in West Virginia of unqualified medical men. The president of the State Board of Health gave the facts in a case in which the Columbus Medical College had grossly violated its pledges to the profession by its annual announcements. Since then that college has replied to these charges in such a manner as to lead the State board to issue a manifesto that hereafter it will not recognize the diploma of that school until it establishes its rectitude to its pledges. This is a good work and we hope the board will continue it until they have induced at least a form of honesty in such colleges as have graduated all who have applied without any reference to their fitness.

The annual address of the president, Dr. J. E. Reeves, is an interesting bit of reading to any person medical or otherwise. It contains many lively suggestions as the one respecting Columbus Medical College, to which we have already alluded.

"New Remedies" are reported upon by Dr. R. W. Allen and Dr. A. Stifel. "Retro-displacements of the Uterus with Adhesions" is the title of a paper by Dr. D. P. Morgan. Dr. T. R. Camden presents some of the facts bearing upon "Public Health" as of interest to the profession. D. W. H. Sharp reports upon "Five hundred Cases of Midwifery."

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*Transactions of the Medical Society of the State of West Virginia. Sessions 1881-82. Wheeling, W. Va , 1882.

Dr. R. W. Hall reports a case of "Placenta Previa." Dr. E. A. Hildreth presents a "Synopsis on some of the Relations of Meteorology and Disease." This is a confessedly important subject and the additions here made to it are considerable. Other papers treat of "Sudden Death from Rupture of Pulmonary Artery," "Clinical Note on Typhoid Fever," "The Influence of Our Drinking Water on the Public Health," "Case of Intestinal Occlusion," "Report of Cases of Ovariotomy." The whole is well issued and constitutes a record very creditable to the energy and ability of the society.

Donaldson's Contributions to Practical Gynæcology.*

This is a collection of papers read before the New York Medico-Chirurgical Society. Part first treats of uterine deflections and part second of dysmenorrhœa.

These essays are thoughtful and suggestive. Hence they will prove to the student helpful in the best sense of the term. The author thinks that the capital operations of gynecological surgery have made wonderful progress because based upon scientific principles and natural laws. But the management of minor disorders has yielded very indifferent results; often they have steadily become worse in spite of the best laid plans of treatment.

He criticises the diagrams of the anatomical relations of the female generative organs, found in the text books. That they are incorrect in a gross degree he proves by showing that they do not correspond with the verbal descriptions found in the books. This incorrectness is a source of trouble to the gynecologist as it colors all his mechanical appliances for the correction of displacements, etc. Incidentally he makes the following suggestions respecting constipation. "The cure of constipation is readily accomplished by the establishment of punctual attention given to the bowels at a determined moment daily, by the dismissal of every form of cathartic drug, discontinuance of the expulsive effort, a reliance upon peristalsis and by a regulation of the diet, all of which should be explained to the patient. A portion of rye meal mush and treacle will, in a few days, relieve ninety out of a hundred. Add to this the appropriate remedies and we complete the requirements." All this may be true but practically it will not work as a rule.

He thinks that many of the accidents incident to child birth, etc., are incidental to fatty degeneration of the parts involved in the strain. The restorative powers of an active life are made manifest on an individual's being compelled to work for daily bread with an object in life. Among other evils of tight lacing he calls attention to the fact that constant pressure results in an atrophy of the muscles of the parts involved.

In the treatment of dysmenorrhœa he directs attention to the ill effects of narcotic medicines. Especially does he warn against opium; sooner or later these patients become addicted to the use of this or some other narcotic to help them endure their sufferings. It is the duty of the physician to protect his clients in every possible way from the use of this drug, for as surely as day follows night, there is not a single narcotic that will not breed neuralgias, besides rendering its victims irresolute, cowardly and intractable.

Tilt on the Change of Life.*

As this is the fourth edition of this work, it needs no commendation to establish its popularity. But the issue of this cheap edition will doubtless induce many more to add it to their libraries. The author calls attention to the several milestones on the road which leads from the cradle to the grave. In the first part of the road we have seven, fourteen, and twenty-one clearly written. In the last portion we have forty-two, forty-nine, and sixty-three. These dates point to periods of human life characterized by very important changes, many of which give a peculiar aspect to the physiology of the human being and impart a family likeness to the diseases of these critical epochs.

The present work only claims to be a clinical history of ganglionic diseases, carefully studied in their rise, progress and subsidence, at the successive critical periods of the life of women. He believes he has established that the ovary produces certain well defined ganglionic diseases and that some of these determine cerebro-spinal affections. From this basis he attempts to show the probability that the same affections may be sometimes determined by other viscera. He also tries to provet hat the central epigastric ganglion has definite functions and definite diseases. While all will not probably assent to every proposition asserted, all will be interested in the clinical records and the suggestive remarks thereon, especially as the style of the author is a pleasing one.

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*CONTRIBUTIONS TO PRACTICAL GYNECOLOGY, ILLUSTRATED WITH SIXTEEN WOOD ENGRAVINGS. By S. J. Donaldson. New York. J. H. Vail & Co. Paper, pp. 134. For sale by J. MacFarlane, Detroit, Mich. Price, $1 25.

*THE CHANGE OF LIFE IN HEALTH AND DISEASE, a clinical treatise on the diseases of the ganglionic nervous system incidental to women at the decline of life. By D. E. J Tilt. Philadelphia: P. Blakiston, Son & Co 1882 Paper; pp. 184. Price, 75 cents. For sale by John MacFarlane, Detroit.

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Fourteenth Annual Report of the Inebriates' Home, Hamilton, N. Y.*

This report shows that during the year five hundred and eighteen patients were treated. The capacity of the house was taxed to its utmost. It is difficult to tell how much good has resulted. The report says that of the three hundred and seventeen patients who left the home during the year, one hundred and ninety-five are in business and doing well, sixty-one were unimproved, and fifty-five were lost sight of.

As to the occupations of these, the largest number were clerks, sixty-five; then merchants, twenty-eight; then laborers, twenty-five; then the idle, sixteen.

From the statistical tables of the treatment of six hundred cases, we learn that one-fourth had received a liberal education, about one in eleven followed professions, a large proportion were skilled mechanics; of the business men all were above the medium point of capacity and intelligence. Thus it seems that dipsomaniacs come from the more intelligent and educated classes of society.

Then the records show that insanity or inebriety of one or both parents are frequent predisposing causes of inebriety.

Among the other causes of inebriety stand disease, head injuries, phthisis, syphilis, gonorrhœa.

The superintendent thinks that the record of cures of inebriety is quite as favorable as that of nervous disorders in general. As dipsomania begins between the ages of fifteen and thirty-five, it is possible for parents and guardians to take especial care of those having tendencies in this direction between these periods. Then to such the physican should never prescribe alcohol in any form for any disease, and when it is administered it should be done in the form of alcohol, instead of beer or wine, etc. He thinks that the average practitioner does not exercise the same care in the prescription of alcohol as in other powerful drugs. As the prevalence and direful results of this disease are of such importance to all concerned this report should command at least the careful attention of all medical men.

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Manson on the Sulphate of Quinine *

At the present day the sulphate of quinine is unquestionably the most important drug used in the practice of medicine. It matters little whether we estimate it from the number of doses yearly administered or the gravity of disorders relieved thereby. The little work before us gathers up the facts already known respecting the physiological and therapeutic action of this drug, and presents them to us in a convenient and readable shape. Nothing is added to our stock of knowledge, but the results of the investigations of others are fairly and fully stated. With the literature of the subject the author is evidently familiar. We cordially commend the book to such as are seeking information respecting this drug. The book is well written and published in good shape, except that it has no index.

◆

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 1882.†

At the time of the meeting of this society we gave many abstracts from the several papers read. Hence it will be needless to more than call attention to the promptness with which this volume has been issued and the general excellence of the work which it records. The society is so fortunate as to have among its members professors in the Johns Hopkins University, who contribute the most scientific papers presented — papers which reflect credit upon American Medicine. There is one feature of this society which is worthy of imitation, and that is the organization of the several sections and the regular meetings of the same during the year. In fact, these sections become medical societies on special subjects, which by their frequent meeting develop a very considerable amount of material worthy of being presented at the general annual meeting, so that the addresses of the chairmen of the several sections are largely devoted to presenting abstracts of the papers and discussions of previous meetings of the sections.

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*Fourteenth Annual Report of the Fort Hamilton Inebriates' Home, for 1881; also a statistical report of six hundred cases of alcoholic inebriety. By Dr. Mason, Fort Hamilton, N. Y. 1882. Paper; pp. 27.

*A Treatise on the Physiological and Therapeutic Action of Sulphate of Quinine. By Dr. O. F. Manson. Philadelphia: J. B. Lippincott & Co. 1882. Cloth; pp. 164. Price $1. For sale by John Macfarlane, Detroit.

†Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 1882. Paper; pp. 248. Baltimore, Md.

Of course most of this material is a rehash of old matter, but then this is true of all papers and all medical societies.

◆

Jelks on the Hot Springs of Arkansas.*

We were quite interested in the account here presented of the virtues of these springs. That hot water had a positive therapeutic value we were previously aware but fresh evidence is here again presented. That the various salts add to the virtues of the hot waters we have no doubt but that either or both have greater power than hot water used in a similar manner elsewhere with the same salts added we do not believe.

Respecting the physicians of the town he says, "there are many physicians here who pay for all the patients they get. They have no professional standing in the community, and employ the hotel drummers to bring them business, giving fifty per cent. of what they get to the "roper" or steerer." These hotel drummers are the sharpest men in town, and are excellent judges of human nature. When they get a visitor to their boarding houses, they find out what doctor the man desires to consult, and then tell him the man is either dead, moved away, or a drunkard, or will make any other false representation that may suffice to hoodwink the victim for a few hours or until they have an opportunity to "show him around town" and sells him to some drumming doctor. Still, there are at least a dozen doctors an honor to the profession anywhere.

◆

Letters Pertaining to Chas. J. Guiteau.†

It is said that these letters have not hitherto been published. They were collated for presentation to the President as the basis for asking for a commission in lunacy to reinvestigate Guiteau's mental state. They did not succeed in inducing the President to grant a reprieve. Guiteau has met his end. We have carefully looked over the letters, and, although we pretend to no special attainments in the way of an alienist, these letters more than convince us that Chas. J. Guiteau was an unmitigated scoundrel, and if ever any person deserved for the good of humanity to die, he did. These letters make it clearer to us that in this cause justice did not miscarry. If ever a villain existed he was one.

◆

Report of the Utica Lunatic Asylum for 1881.*

This 39th annual report exhibits an increased degree of prosperity in the management of the asylum. It appears that the average of recoveries during the entire period of its history has been 36.47 per cent., during the year included in the report 31.76 per cent. There were in the asylum at the first of the year 614 patients. Four hundred and eleven patients were admitted during the year. The current receipts of the institution were sufficient to meet the ordinary expenses. Details are given for all the receipts and expenditures, provisions for the comfort and convenience of the inmates, toe provisions against fire, water supply, etc. Further than this the report does not go. Hence, while it is of interest to those who look after the support of the asylum, it is less so to a simple student of insanity.

◆

Jenks on the Practice of Gynæcology in Ancient Times.†

This paper of nearly 50 pages is based upon an extended research of the medical literature of the ancients. The author has illustrated his paper with cuts taken from the old works, some of which show that the idea fundamental in many modern discoveries was known ages since. The whole is compiled in a most interesting manner. All will read it with interest and profit.

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We have received the following reprints from medical journals, etc. :

Two Cases of Tinnitus Aurium, caused by disturbances in the current of cervical blood vessels, and otitis media catarrhalis; objective sounds; nervous origin; hysteria. By Dr. R. C. Brandis.

A Study of Rupture of the Bladder, with some experiments bearing upon the closure of the vesical wound. By Alex. W. Stein, M. D

Dr Maclean's Reply to Dr. Pratt's Paper before the late meeting of the State Society, upon the causes of ununited fractures.

Dr. Burr on the Insanity of Masturbation.

The Practice of Gynæcology in Ancient Times. By Dr. E. W. Jenks.

Dr Frothingham's Statement of the Joy Electric Belt Difficulty.

Note on the Essential Psychic Signs of General Functional Neuratrophia or Neurasthenia.

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*Hot Springs of Arkansas and their Therapeutical Indications. By J. T. Jelks, M. D. Paper, pp 6

†Letters and Facts not Hitherto Published Touching the Mental Conditions of Chas. J. Guiteau since 1865. Paper; pp. 31.

*Thirty-Ninth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the year 1881. Albany, 1882 Paper, pp. 42

†The Practice of Gynæcology in Ancient Times. by Edward W. Jenks, M. D., LL D. Reprint from the sixth volume of the Gynæcological Transactions pp. 46

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and Albert B. Lyons, M. D

Chemistry and Pharmacy.

ACONITINE—DANGER OF PRESCRIBING IT.—Owing to the great variability in different samples of a powerful drug like aconite, it is generally desirable to substitute for the crude drug its active principle, which may be assumed to be of definite and invariable strength. Aconite, however, forms in the present condition of our knowledge of its constituents an important exception to the rule. While it is true that aconitia is the most active poison known, *i. e.*, fatal in the smallest dose, it is also true that the aconitia of different manufacturers varies widely in its activity. This was illustrated somewhat recently in a case of accidental poisoning by a prescription containing aconitia nitrate. In the judicial investigation which resulted, samples of aconitia nitrate from three reputable manufacturers were examined with reference to their toxic power.

The preparations examined were manufactured respectively by Petit, of Paris, E. Merck, of Darmstadt, and Friedländer of Berlin. The first of these, that which had been the unfortunate occasion of the investigation, consisted of hard white crystals, but little soluble in water. Merck's preparation was a yellow brown powder, readily soluble; Friedländer's consisted of hard, grayish white gummy masses, very soluble in water.

Numerous experiments were made, of which it is sufficient to quote one series. A rabbit which had received .8 millegrams (about $\frac{1}{80}$ of a grain) of Petit's preparation survived only 30 minutes. Another to which was administered 10 millegrams (one-sixth grain) of Merck's preparation, lived 15 hours, and one which had received 3.5 millegrams (one-twentieth grain) died only after 75 hours. Other rabbits which had received respectively 25 and 50 millegrams ($\frac{3}{8}$ and $\frac{3}{4}$ grain) of Friedländer's aconitia recovered. The relative activity of the three preparations, as deduced from these experiments, was for Friedländer's 1, for Merck's, about 25, for Petit's about 200. The difference between the two German preparations is especially noteworthy, since we are sometimes told that the German aconitia is much safer, because less active, than the French or English. If aconitia is prescribed at all it must be that of some particular manufacturer, but the objections to discriminating in favor of one pharmacist are so cogent that as a rule it would be better to forego any advantage that might otherwise be expected from the use of an article of supposed definite strength.

The Dutch pharmacopœia states as the maximum medicinal dose of aconitia, 4 millegrams (32 mg. daily) a quantity which in the case in question proved fatal. By a mis-print, the National Dispensatory (Stillé and Maisch) gives 5 millegrams, instead of 0.5 mg. as a common dose.

ACONITE ROOT, VARIATION IN ITS STRENGTH.—The *Therapeutic Gazette*, May 1882, gives the results of an examination, made at the laboratory of Parke, Davis & Co., of six samples of aconite root, offered for sale by prominent wholesale dealers in drugs.

All but one of the samples were of the ordinary aconite root, varying only in size, and in alkaloidal content. The sixth, labeled Chinese aconite, belonged to a different species. The tubers were plump and conical (fusiform) some of them with one or more small processes of a similar form, set nearly at a right angle with the axis of the main tuber. They were of pretty uniform size, about 1¼–1½ in. long, and ½–9-16 in. in diameter. The surface was generally smooth, and the interior generally quite white, of a uniform texture, and a peculiar chalky appearance, abounding in starch. The same tubers have been frequently observed mixed with those of the ordinary aconite.

The six samples contained respectively 1.182, 0,599, 0.597, 0.548, 0.531, and 0.356 per cent. of aconitia, while 0.6 may be set down as the minimum figure for a standard drug. One of the samples was nearly twice this strength, while none of the others reached even so low a standard, and one, the Chinese aconite, was but little more than half this strength.

With all skill and honesty in manufacturing extracts, tinctures, etc., from drugs varying so widely as this, it is not strange that the preparations of aconite frequently disappoint the prescriber. For drugs like this, especially those of such activity, some standard of strength ought to be officially prescribed—even an arbitrary one—to secure anything like uniformity in the therapeutic results expected from them. This is work for scientific pharmacy; it is for the physician to encourage and aid it to the extent of his ability.

DETECTION OF MINUTE TRACES OF MERCURY.—Prof. Merget, of Bordeaux, describes an extremely sensitive reaction for mercury, which is withal so simple that any one can apply it. It is especially adapted to the detection of traces of mercury in the urine, and in the blood or tissues of animals that have been poisoned by mercurial vapors. A sheet of bright copper foil is partially immersed in the fluid to be examined and allowed to remain for some hours. A piece of paper is prepared by rubbing it with some cotton which has been impregnated with an ammoniacal solution of silver and then allowed to dry; when the copper strip is removed from the liquid it is dried by pressing it between folds of filter paper, these enclosed between folds of silk paper, which is then covered again with the prepared paper and placed between the leaves of a large book. In a few minutes the silk paper becomes stained with a deposit of metallic silver by that portion of the copper which has been immersed in the mercurial solution.

DETECTION AND ESTIMATION OF ERGOT IN FLOUR AND BREAD.—D. Pöhl directs: (*Pharm. Zeitsch. für Russl.*) treat 15 grams of the flour or well dried and powdered bread with 30 c. c. of ether containing 15 drops of dilute sulphuric acid (1.15), macerate, filter and wash the residue with more ether, until the filtrate measures 30 c. c. Shake this with 20 c. c. of a cold saturated solution of sodium bicarbonate, which removes from the etherial solution the red coloring matter of the ergot. For quantitative estimations it is only necessary to make artificial mixtures containing a known quantity, 1.5 per cent. of ergot, and treat in the same way, comparing the color of the resulting solutions. [Since different samples of ergot vary very greatly in the amount of coloring matter they contain, the result can only be regarded as approximate.]

SOLUBILITY OF OFFICINAL MORPHIA SALTS IN WATER AND ALCOHOL.—Some recent experiments by J. U. Lloyd (*New Remedies*, May, 1882) show that some of the statements of our text-books in regard to the solubility of morphia salts require modification. The solubilities as determined by Mr. Lloyd are as follows:

Acetate of morphia: one part requires of water at 60°F., 11.7 parts; at 212°F., 1.34 parts; of alcohol, sp. gr. .820, at 60°F., 68.3; at the boiling point, 13.3.

Hydrochlorate of morphia: one part requires of water at 60°F., 23.4 parts; at 212°F., 0.51 parts; of alcohol at 60°F., 62.7 parts; at the boiling point, 30.8 parts.

Sulphate of morphia: one part requires of water at 60°F., 21.6 parts; at 212°F., 0.75 parts; of alcohol at 60°F., 701.5; at the boiling point, 144 parts.

The most important fact to be observed is that morphia sulph. is almost insoluble in cold alcohol, and that water will not hold at 60°F. more than about 3 grains to the fluid drachm.

PANCREATIN, PRACTICAL TESTING OF.—Some experiments recently made in the New York College of Pharmacy indicate that there is a great difference in different samples of pancreatin found in the market, and some ready means of distinguishing those which are active should be employed by every conscientious dispenser, and physicians should interest themselves enough in the matter to ascertain some of the results obtained in such testings, to aid them in prescribing intelligently. The principal points to be ascertained in regard to any sample of pancreatin are its (1) amylolytic activity, (2) its proteolytic activity and (3) its emulsifying power. W. Roberts has done pharmacy a good service in furnishing simple working processes for ascertaining the first two of these points. He determines the diastatic value of the sample by ascertaining how much of a standard starch mucilage can be so far transformed as to give no color reaction with iodine, the temperature being constant and the time of the experiments fixed within a definite limit. The starch solution used contains one per cent. of starch. Between 30° and 45°C., (86° and 113°F.,) the activity of the pancreatin does not vary much, above or below these limits it diminishes. The time allowed by Mr. Roberts was five minutes. He found that the pancreas of the pig possessed the amylolytic property in the highest degree. The author's statement, which is a trifle vague, is that the extract from the pancreatic tissue of the pig has a mean diastatic value of 100, those from the ox and sheep having the values respectively of 11 and 12, while filtered human saliva showed a value ranging from 10 to 17, and malt diastase at 40°C. on the same scale had a value only of 4 to 5—becoming, however, at 60°C. about 10.

The proteolytic value of pancreatic extracts is estimated by the author, by observing how much new milk can be brought by it, at a given temperature and in five minutes' time, to such a condition, by formation of metacasein, that it is coagulated by boiling.

Another mode of making the test, suggested by D. C. Moriarta (*New Remedies*, May, 1882), is as follows:

Mix five grains of the pancreatin with 20 grains of bicarbonate of soda and four ounces of water; add to this mixture one pint of milk previously warmed to 140°F., and set aside two hours in a warm place. If the milk is completely peptonized, so that acetic and nitric acids do not produce precipitates, the pancreatin may be considered of standard strength—in absence of official standard. If five grains is found insufficient a larger quantity may be taken in a second experiment, or rather to save time several experiments may be made at the same time with 5, 10, 25 and 50 or 100 grains of the pancreatin.

Of eight samples tested by Mr. Moriarta, only three, one English and two American, responded satisfactorily to this test; a fourth sample, 100 grains, was scarcely sufficient to completely peptonize the milk, while of the remaining samples, 240 grains was found insufficient, even in ten hours' time, to accomplish this result. Two only of the samples showed a satisfactory degree of amylolytic activity, and these two were the same, one English, the other American, which had exhibited the greatest proteolytic power.

PTOMAINES CONTAINING ARSENIC.—Some recent researches into the nature and chemical constitution of ptomaines developed in presence of compounds of arsenic, give us possibly a key to the mystery of the aqua toffana. Scientific men have been hitherto skeptical in regard to the accounts given of this famous secret of the professional poisoners of Italy. That it was a preparation of arsenic was considered sufficient reason to discredit the stories of its virulence as well as of the specific effects attributed to it.

Prof. Selmi, however, has found in the bodies of persons who have died from arsenical poisoning as well as in animal tissues that have been preserved in arsenical solutions, poisonous alkaloids, some of them positively containing arsenic, which produce a great variety of toxic symptoms, some of them exhibiting extraordinary virulence. He describes in particular a volatile base which strikingly resembles strychnine in its action. This was obtained from the stomach of a hog which had been preserved in a solution of arsenious acid.

According to the tradition, aqua toffana or *acquetta di Perugia* was prepared by strewing with white arsenic pieces of swine's flesh, and afterwards collecting the liquor that drained from them. The juice of a plant is said to have been added, but of course details of the process have not came down to us. From what we are learning, however, of the arsenical organic compounds described by Prof. Selmi, we can understand that a preparation having deadly properties, but not at all resembling arsenic in the symptoms it produces, may possibly be prepared by some such process as that practiced by the practical toxicologists of Italy two centuries ago.

Ptomaines Distinguished from Plant Alkaloids.—In the present imperfect condition of our knowledge of the cadaveric alkaloids, we are unable with certainty to distinguish them, as a class, by any peculiarity in their reactions from the alkaloids found in plants. Not long since MM. Brouardel and Boutney called attention to potassium ferricyanide as a reagent capable in most instances of differentiating the cadaveric from other alkaloids. The former reduce the ferricyanide at once to ferrocyanide, so that ferric salts produce with the mixture a precipitate of Prussian blue. We were told that morphine, and to a less extent, veratria formed exceptions among the vegetable alkaloids to the rule, the former reducing the ferricyanide quite actively. H. Beckurts, however, has recently shown that many other vegetable alkaloids possess in some degree the same power. Colchicia and morphia reduce the ferricyanide at once; of the other alkaloids tried, atropia was the only one which exerted no such influence, so that the proposed test is of no practical value.

Ptomaines in the Secretions of Animals.—While the exact nature and source of the so-called cadaveric alkaloids is not as yet fully elucidated, it appears that they are not found alone in putrefying animal tissues. A. Gautier thinks he has identified the venom of poisonous serpents as belonging to this class of bodies. Examining the saliva of the higher animals, he finds here also substances which correspond in their chemical behavior with the ptomaines and which seem to have toxic properties similar to those of the venom of serpents. Even from human saliva he extracted a substance which proved fatal to birds when injected under the skin, the phenomena presented being identical with those produced by the bite of a venomous serpent.

Another investigator, M. Schlagdenhauffen, finds that the entrails of certain shell fish, perhaps of mollusca generally, contain substances of a similar character, although they do not appear to be very poisonous. The suggestion is made, however, that the occasional toxic effects produced by shell fish, especially at certain seasons of the year, may be due to the presence in unusual quantity of the compounds in question.

GLUCOSE MEAL AS FEED FOR MILCH COWS.—The refuse from glucose factories is sold in large quantities as feed for cattle. In the fresh state it is nutritious and probably not unwholesome, but it is prone to ferment, and in warm weather becomes quickly sour. There is little question that in this condition it is not a wholesome food for animals, and that milk produced from it is unfit for use. According to the New York *Tribune* an unusual prevalence of cholera infantum in one western city of the state has been traced to the use of milk from cows fed on the sugar meal, and certain owners of cheese factories are said to be so well satisfied that heavy losses of the year on bad cheeses are due to sugar meal fed to cows that they decline to receive any more milk from dairies where such feed is used.

MEDICATED SOAPS.—The following formulas are credited (*Am. Jour. Phar.*, Feb., '82) to *Seifen Fabrikant*, 1881, No. 23:

Tannin Soap—Cocoanut oil, 18 lbs., saponified with soda lye, 9 lbs.; half a ponnd of tannin, dissolved in alcohol, is then added, and finally the perfume, consisting of Peru balsam, one ounce, oil of cassia and oil of cloves, of each one-third of one ounce.

Iodine Soap—Cocoanut oil, 20 lbs., lye of 38°B. 10 lbs., and potassium iodide, one pound, dissolved in water, one-half pound.

Gall Soap—One pound of gall is mixed with 16 lbs. of cocoanut oil, and saponified in the cold with 8 lbs. soda lye of 38°B. The soap is colored with ¼ lb. ultramarine green, and perfumed with six fluid drachms each of the oils of lavender and caraway.

Camphorated Sulphur Soap—Cocoanut oil, 24 lbs., soda lye of 38°B., 12 lbs., sulphuret of potassium, 2 lbs., dissolved in water, one pound; camphor, 5 oz., to be dissolved in the melted cocoanut oil.

YVON'S TEST FOR THE PURITY OF CHLOROFORM.—The test recently proposed by M. Yvon, for the purity of chloroform (*Lancet*, May, '82), has been subjected to a critical examination by several English chemists, and is condemned for the following reasons:

1. The test is too rigorous, in that it does not permit of the presence of the small proportion of alcohol which experience has proved necessary for the preservation of chloroform.
2. That any sample of chloroform, however impure, can be made to answer to the test by merely agitating it with sulphuric acid.
3. That all the chloroform manufactured, previous to the addition of alcohol, will stand the test, although they may not pass the tests ordinarily prescribed.
4. That the chloroform purified by M. Yvon's process, by agitation with an alkaline solution of potassium permanganate, is certainly not pure, even judged by the crude test of the odor alone.

BOTANICAL SOURCE OF CUPREA BARK.—The new cinchona barks, which, under the name of cuprea barks, have for several years supplied a considerable proportion of the quinine manufactured, turn out to be not cinchona bark at all, but the product of an allied genus, Remijia. These barks are gathered in two distinct regions, one the basin of the Oronoco to the south of Bogota, the other, which was that first explored, the lower part of the basin of the Magdalena river.

St. Hilaire described the plant or plants furnishing the *quina de serra* (mountain cinchona) as cinchona Remijiana, in honor of the Surgeon Remijia, who had pointed out to the Brazilians the anti-periodic virtues of the bark. De Candolle recognized in the species a distinct generic type, and retained for the new genus the name Remijia. The plants of this genus are distinguished in their axillary inflorescence in the dehiscence of their capsules and in the structure of their bark from the cinchonas. Hitherto it has been believed that the presence of alkaloids sufficed to discriminate the species of cinchona from those of allied genera; now we find that two species at least of Remijia also yield alkaloids, and that these are for the most part identical with those already obtained from cinchona barks. One remarkable fact, however, is noted in the complete absence from the cuprea barks of cinchonidia. At least one alkaloid, cinchonamia, however, is peculiar to the cuprea barks, although not found in all specimens.

The most important practical consideration, however, in connection with this subject arises from the circumstance that the cupreas of Columbia grow under conditions of elevation, soil, heat and exposure very dissimilar to those most favorable to the growth of the cinchonas.

The Remijias are said to be more hardy; they grow much lower on the slopes of the mountains, love warmth, and are not destroyed by drought, and it is believed that they will lend themselves easily to cultivation and that they will thrive in tropical countries where the cinchonas refuse to grow. The species yielding the cuprea bark are: 1. R. Purdieana, Wedd., growing in the provinces of Antioquia and Santander, in the valley of the river Magdalena. 2. R. pedunculata, Triana, growing on the eastern slope of the eastern Cordillera, on affluents of the Oronoco and Amazon rivers.

DIASTATIC FERMENT IN EGG ALBUMEN.—According to F. Selmi there exists in egg albumen a substance capable of transforming starch into sugar. This substance may be isolated by precipitating the albumen from its aqueous solution by alcohol, and evaporating the fluid at a low temperature.

PENCILS of iodoform are prepared by K. Mueller (*Phar. Ztg.*, *Am. Jour. Pharm.*) by triturating 92.5 grams finely-powdered iodoform with a solution of 5 grams gum arabic in 2.5 grams each of glycerin and water, until a plastic mass is obtained, which is rolled out to the desired thickness and cut into pieces about four inches long. Should the mass become too brittle a little water is added. The pencils become dry in about two hours, and to prevent flattening are laid upon waxed paper creased so as to form a gutter.

DETECTION OF COTTON SEED IN OLIVE OIL.—The following test is employed by the Italian revenue officers: Two cubic centimeters of pure nitric acid are mixed with 5 cc. of the oil, a piece of clean copper wire is introduced and the mixture is stirred with a glass rod. If it contains cotton seed oil it turns red in the course of half an hour.

HUNYADI JANOS WATER, ARTIFICIAL.—Prof. Charteris recommends the following substitute for the natural Hunyadi Janos mineral water, as possessing every adantage attributed to the genuine article: Magnesium sulphate, 516 grains; sodium sulphate, 519.5 grains; potassium sulphate, 2.75 grains; sodium chloride, 39.15 grains; sodium bicarbonate, 15.6 grains; water, 1 pint. Dose, 2 ounces and upwards.

CAFFEINE FROM GUANO.—Strecker long ago pointed out the apparently close relationship between caffeine, theobromine, and xanthine. The three substances belong to a homologous series, so that caffeine may be regarded as a tri-methyl, and theobromine as a di-methyl derivative of xanthine (xanthine $= C_5H_4N_4O_2$; theobromine $= C_5(CH_2)_2H_4N_4O_2$ or $C_7H_8N_4O_2$; caffeine $= C_5(CH_2)_3H_4N_4O_2$ or $C_8H_{10}N_4O_2$.)

Xanthine is also closely related to uric acid, containing one atom less of oxygen than that compound, and actually obtained from it by reduction with sodium amalgam. It forms occasionally urinary calculi, and is a common constituent of concretions (bezoars) found in the intestines of certain animals. Its essentially excrementitious character is therefore obvious. Until recently attempts to convert xanthine into the homologous alkaloids had been unavailing, but Emil Fisher has succeeded at length in effecting this interesting transformation, and we shall expect before long to have to scrutinize our caffeine as we now do our benzoic acid to make sure that in previous states of existence it has not been disreputably associated.

Practical Medicine.

SYPHILIS—ITS RELATION TO SCROFULA.—Dr. John B. Roberts (*Medical Times*, March 25, 1882) presents the following views:

I. Syphilis and scrofula undoubtedly show a tendency to affect similar structures, as is proved by the many diseases formerly classified as scrofulous now known and admitted to be inherited syphilis. In fact, those who hold that the two affections are distinct are obliged to admit that it is sometimes impossible to determine from symptoms, or even from the antecedent history obtainable, which disease is responsible for the lesions exhibited.

II. Scrofula has been, and is, most common at times of life, in historic periods, and in countries in which syphilis is known to have been and to be prevalent and virulent. Again, scrofulous diseases are less prominent and more benign at the present day than formerly, when acquired syphilis was more destructive, because less judiciously treated.

III. It is so well known that syphilitic parents have, as a rule, syphilitic children; that an exception gives rise to scientific comment. Scrofula is usually an inherited condition, and could readily, therefore, be due to such a widespread and prolific parentage as syphilis.

IV. Scrofulous affections are found in the highest stations of life—a fact which would be well nigh inexplicable if scrofula were the resultant of exposure, insufficient food, filth and bad air. If it be a grandchild of syphilis, however, its presence in every household can be as general as the immorality that gives birth to its ancestor.

V. Cases occur similar to that reported by Lugol, who refers to a family of two healthy children, the father of whom subsequently contracted syphilis and inoculated his wife. His third child was born, who, after exhibiting many scrofulous symptoms, died at eighteen years, though the elder brother and sister presented no such conditions of ill health.

VI. Acquired syphilis has been accused of awakening scrofulous manifestations in those predisposed to scrofula in whom no symptoms have occurred for years. This suggests a relationship between the affections which is very intelligible if scrofula be viewed as a remotely inherited syphilis.

VII. Scrofula is the condition furnishing deposits of tubercle, which are the result of infection arising especially from cheesy accumulations. Syphilis is an incessant instigator of inflammations and of gummy tumors which frequently undergo caseous degeneration. Hence pathology points at syphilis as an agent well calculated to give birth to the scrofulous diathesis.

VIII. The most effectual remedies in the treatment of syphilis, whether acquired or inherited, are mercurials and preparations containing iodine. These so-called specifics in the management of syphilis are agents of greatest benefit in alleviating scrofulous manifestations.

The arguments of those denying the syphilitic parentage of scrofula may be summarized as follows:

I. Scrofula is not innoculable, as are the primary, the secondary, and sometimes the inherited lesions of syphilis.

II. The successive steps between primary syphilis in the progenitor and scrofulous diseases in the posterity have not been traced by any scientific investigators, who quote only isolated cases of apparent relationship.

III. Scrofulous affections are found in patients who have presented no such manifestations in early life (when inherited syphilis is especially noticeable), who have had neither scrofulous nor syphilitic parentage, and who have never acquired primary syphilis. Moreover, phthisis, which is a lesion of scrofula, is found very frequently in animals not known to have syphilis.

IV. Scrofula is not considered a factor in the causation of syphilis, as might be expected if there was a mutual relationship between them.

V. Scrofula is believed by some to have existed in Europe before the advent of syphilis, and according to certain writers is now prevalent in countries where syphilis is rare.

VI. Syphilis yields more quickly and completely to treatment than scrofula, though the same or similar remedies may be available in both diseases.

Such are the arguments of the advocates and of the opponents of the syphilitic origin of scrofula. The affirmative side seems to me to present more points that are generalizations, and, at the same time, to offer greater difficulties for its opponent to meet. The negative arguments are weakened by the facts —1, that most animal poisons become weakened when passed through several subjects, and that there is evidence pointing to the possibility of scrofulous disease being transferred from one person to another; 2, that the links of the chain must be imperfect when the period of hereditation and differentiation requires probably several generations; 3, that it is admitted even by the affirmative side that scrofula may arise from ordinary inflammations, and hence may occur in animals as well as in a non-syphilized man; 4, that many causes in nature cannot assume the rôle of effects; 5, that statistical evidence is proverbially subject to errors; and, 6, that the relative time of therapeutic influences depends more on the tissue-changes produced than on the etiological agency.

A survey of the field has led me to the conclusion that vast numbers of cases of so-called scrofulous disease are the direct result of inherited syphilis, but that, until pathology ascribes the tuberculous diathesis to a *special* and not a mere inflammatory infection, it is illogical to deny that acquired, and therefore also hereditary, scrofula may, and at times does, arise from absolutely non-syphilitic precedents.

BRIGHT'S DISEASE, CONTRIBUTIONS TO ITS HISTOLOGY.—Dr. Louis D. Brose (*Medical Times*, March 11, 1882) from some special studies concludes:

1. That a nephritis may result whenever we have the blood going to the kidneys surchanged with any irritating material that is excreted by them.

2. That a fatty degeneration and infiltration of the very early stages of nephritis—in fact, within twenty-four hours after its production.

3. That the first alterations in the kidney are to be seen in the epithelium lining of the

convoluted uriniferous tubules, and that this alteration manifests itself in a clouding of their protoplasm.

4. That the intensity of the lesions is directly in proportion to the concentration of the poison.

5. That we may have a parenchymatous nephritis without an involvement perceptible by the microscope of the interstitial tissue; but that this occurs very rarely, and only in those cases in which the poison acts either very severely and produces the early death of the animal, or its very great dilution by the blood and rapid excretion renders its influence transient and the animal makes an early recovery. In many cases there is an involvement of the interstitial tissue as well as of the epithelium, and cases are seen with all grades of these transitions.

6. Interstitial nephritis may occur as an acute disease, but in all cases of interstitial nephritis there is always detectable by the microscope more or less cloudiness of the epithelium, and while this latter may return to its normal condition after the excretion of the irritant, the connective tissue, on the contrary, when once formed cannot again undergo reabsorption. However, the irritation exerts its influence at one time upon the interstitial tissue, and then the red granular kidney results, or at another time it acts most on the epithelium, when we have as a result the large white kidney.

7. The blood-vessel walls are thickened, and that this alteration is due to a hypertrophy of all three coats, for the irritating matter affects not one coat alone, but all three alike.

8. That desquamation is due to an impermeability of the epithelium in consequence of its granular alterations, and thus the cells are forced away from their basement membrane by a *vis a tergo.*

9. That parenchymatous nephritis is a very active process, as is shown by the great cloudiness of the cells and the presence of highly granular and bloody cylinders in the urine, and that the interstitial lesion is more of a passive process, resembling very much the results which we see following a passive congestion in any other part of the body.

Typhoid Fever, Its Antipyretic Treatment.—Dr. Austin Flint (*Medical News*, January 7th, 1882) concludes a lecture on this subject as follows:

1. That by the employment of cold water externally in cases of typhoid fever, the temperature of the body may, after a variable time of the continuance of the employment, be reduced to 102° or lower.

2. After a period varying very much in different cases, and, also, at different times in the same case, the temperature, as a rule, again rises as high as, or higher than, before the reduction.

3. Repeating the employment of cold as often as the axillary temperature exceeds 103°, the number of repetitions required in different cases is extremely variable.

4. The sponge bath and the wet sheet with sprinkling may be employed to the exclusion of the bath-tub in the antipyretic treatment in cases of typhoid fever as well as of other febrile diseases.

5. These modes of employing cold water may be continued sufficiently long for the reduction of temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury, and the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased.

6. Reduction of temperature by these modes as often as it rises, in the axilla, above 103°, improves the condition of the patient. The cases now studied do not afford proof either that the fatality of typhoid fever, or that its duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases.

During the period that the cases now studied were treated, seven hospital cases were recorded in which antipyretic treatment was not employed. In most of these cases the temperature did not rise above 103°, and it was for this reason that the treatment was not employed. Of these seven cases three were fatal, but I need not say that it would be unfair to draw any deduction from the contrast as regards the proportionate number of fatal cases. It is well known that, in general, resistance, toleration and recuperation are not as well exemplified within as outside of hospitals. Moreover, in cases of typhoid fever, patients are not admitted into hospital until some days after the commencement of the disease. The clinical test of therapeutical measures, as far as fatality is concerned, is therefore best afforded by the study of cases in private practice.

7. The results of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the employment of

cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life.

Public Health.

The Prevention of Syphilis.—Dr. J. W. White (*Philadelphia Medical Times*, Jan. 14, 1882) concludes an interesting paper on this subject with the following suggestions.

1. In syphilis we are dealing with a disease of great antiquity, and one having no tendency to become extinct, but, on the other hand, likely to continue indefinitely.

2. This disease already affects an almost incredible number of the population, and by means of its many forms of inoculation and transmission it is rapidly spreading still farther.

3. The existing means for its treatment among the poorer classes are lamentably insufficient, and therefore the establishment of institutions for that purpose or the hospitals is a measure eminently worthy the attention of the public-spirited and benevolent.

4. Its most common mode of propagation is by irregular or illicit sexual intercourse, and therefore we should turn our main efforts at prevention in this direction, while endeavoring at the same time and in every decent and proper manner to guard the community at large from the effects of ignorance.

5. Prostitution, arising in response to the demand for this illicit indulgence, has, like syphilis, existed from time immemorial, and is not likely to disappear.

6. Prostitutes themselves need protection and have claims on the humanity of the law.

7. By means of supervisory legislation and control of prostitution the unlawful sexual commerce of the world may most readily be restricted and the spread of this disease prevented.

8. There is sufficient evidence to prove that such control and restriction, though surrounded with difficulties, are yet possible, and that the advantages to be derived from them are definite and highly important.

9. It is, therefore, advisable that this Society, representing perhaps more fully than any other the sanitary interests of our population of nearly a million, should carefully investigate this momentous problem, and should be prepared to assume and maintain in regard to it a definite and well-grounded position before the profession and the public.*

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Sanitary Science.

Concessions Required of Civilization by Sanitary Science.—These are stated by Dr. F. H. Hamilton (*Medical News*, March 25, 1882) thus:

1. That all plumbing having any direct or indirect communication with the sewers shall be excluded from those portions of our houses which we habitually occupy—in other words, that it shall be placed in a separate building or annex.

2. That we return to the open fireplace or the grate, as a means of warming our houses.

3. A diminished consumption of oxygen by gas-burners. It is still an open question whether we shall be able to light our dwellings with electricity, but so long as we are obliged to depend upon gas, we must content ourselves with light, and not insist upon illumination.

The concessions demanded are named in the order of their importance. The necessity for each is urgent, but the first admits of no compromise. However, there are many other possible sources of ill-health and physical decay incident to civilization than those I have referred to especially. The wholesome light of the sun is partially excluded from the apartments of wealth and luxury, because it fades the costly rugs and drapery, and offends the educated eye by its vulgar and intrusive garishness, and not unfrequently at large receptions the light of day is excluded wholly, in order that the more æsthetic and kaleidoscopic effects of gaslight may be substituted, regardless of the fact that the air is thus rendered unfit for respiration. Our social habits demand that both children and adults shall devote the hours nature intended for sleep to amusements, which amusements are rendered more intox-

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*Nearly half a century ago the eloquent French writer already quoted thus concluded an appeal to the administration of that day: "Pursue relentlessly the diseases propagated, by prostitution, aiming to wipe them off the list of human infirmities. The success which will surely crown such efforts will be the outcome of many years of toil, for which you and your successors should arm yourselves with indomitable perseverance, and of which future generations will reap the fruits. Since you cannot prevent the existence of prostitutes, diminish the evils caused by them. Bewail, if you choose, the sad necessity of tolerating a state of affairs so contrary to preconceived ideas of social propriety, but beware how you aggravate it by neglect or imprudence."—Parent-Duchatelet, *op. cit.*, vol. ii, p. 544.

icating and pernicious by the prolonged respiration of heated and poisonous air. Dress makes its contribution. Utility and regard for health are almost invariably made subservient to the caprice of fashion and the study of effect. Flimsy head-dresses, low necks, short sleeves, tight corsets, high heels and narrow toes do not contribute the sum total of the æsthetic requirements of civilization in the matter of dress. Walking, as a means of locomotion and of exercise, is rendered difficult and sometimes impossible. To romp, or even to move with rapidity and sharp angularity, is unseemly in young ladies. And such young men as "move" in the most refined and polished circles, neglecting robust and manly out-door exercises, pose in attitudes which demand the least possible muscular exertion, or dawdle in effeminate dissipation. In the "best" society there is neither muscle nor backbone. Almost all respectable citizens ride when they might walk, and complain of the want of breath when the absence of an elevator compels them to ascend a flight of steps. Even when traveling, over-heated cars, long confinement in one position, hurried and irregular meals, dust and smoke, bring us to the end of our journey weary, and often sick. Railroads have enabled us to accomplish more in life than was possible when men traveled in coaches or on horseback, but it is doubtful whether in the shortening of human life it has effected the loss is not greater than the gain. All of these evils, and thousands not enumerated, are the necessary incidents to civilization, and medical men are painfully familiar with the impediments they present to the preservation of individual and public health. Indeed, as has been already suggested, it was the presence of these evils chiefly which has rendered our existence as an integral part of society necessary. Nor do I assume too much in saying that, were it not for the teachings of medical men, the physical decay of the human race, under the adverse influences of civilization, would be rapid and complete.

Surgery.

DISLOCATION OF THE HIP JOINT.—Reuben A. Vance, M. D. (*Cincinnati Lancet and Clinic*, March 26th, 1881), read a paper under the above caption before the Cincinnati Academy of Medicine. He says "the questions involved in dislocations of the hip are neither few nor unimportant. I doubt if there is any topic in surgery of equal gravity in which there is such a diversity of opinion, or contradiction in teaching. It is needless to inquire the cause. The complexity of the parts in which the lesion occurs, the different relations assumed by the bones of the pelvis and thigh in sitting, standing and walking together with the widely unlike circumstances under which dislocations of the hip occur, the readiness with which the ordinary landmarks can be obliterated by improper movements of the injured extremity, and the infrequency with which post-mortem examinations are made in individuals who have suffered this injury all go to show why this state of facts should exist. This particular lesion has unfortunately been a favorite field for a class of theorists who adduce opinions without facts upon which to base them and advance inferences which more frequently come from their imaginations than their observations. In order to understand dislocations of the hip the anatomy of the part must be studied by actual dissection, recorded cases must be analysed, the lesion itself investigated and morbid specimens examined. In a word it is from clinical and pathological investigations that the rules for the interpretation of recorded cases are to be derived, and by conveying the rays of fact emerging from each of these sources, surgeons will ultimately be enabled to illuminate this topic with the light of truth.

From facts anatomical, clinical and pathological I have deduced certain conclusions which are now offered for consideration.

The acetabulum is not equally strong at all points, but its osseous wall and cartilaginous and fibrous rim are so adapted to each other that at those points where the greater impacts are received and the most powerful pressures exercised you find the excavation deepest and the osseous and cartilaginous embankment highest. The cotyloid notch is the weakest part of the acetabulum. This is directly downwards and slightly backward when the pelvis is in the position assumed when the body is erect and is closed by the transverse ligament. As we pass from the osseous and cartilaginous to the ligamentous structure of the hip, we find precisely the same law in operation. Where the greatest tension is habitually exercised there the ligamentous structures are best developed. The capsular ligament illustrates this principle admirably. In this structure the fibres pass from the brim of the acetabulum to the neck of the femur, a few strands coming from the anterior inferior spinous process of the ilium, and few from the anterior aspect of the ilio-pectinea eminence. An unbroken continuity of fibers can be traced from the pubic border of the cotyloid notch upwards, backwards and downwards to the ischiatic border of the cotyloid notch. These fibres are thickest on the anterior aspect of the neck of the femur; those above and behind come next, while the weakest part of the capsule is that portion connecting the inferior aspect of the femoral neck with the transverse ligament. Before any conclusions are drawn from these facts another circumstance should be taken into consideration: are there any structures in the neighborhood that tend to prevent the direction of force against the weak point? Although the part of the capsule continuous with the transverse ligament closing the cotyloid notch is the weakest portion of that structure, yet the situation and action of the powerful adductor muscles so protect it that luxation at this point is one of the rarer forms of dislocation of the hip. Weak as is this portion of the capsule, a luxation here can only occur during abduction, and the powerful adductor muscles preventing that movement keep the head of the femur from impinging on the under portion of the capsule. When adduction does occur, the head may penetrate its coverings just without the transverse ligament. The anatomy of the joint and surrounding parts demonstrates this fact: if the head of the femur be brought in contact with the capsule at any point and sufficient force applied, a dislocation may result.

An examination of specimens, and a careful study of clinical phenomena, convinces me that not only may you have a dislocation at any point as anatomy teaches, but that in point of fact you do have the head of the femur forcing its way through the capsule at the point it chances to occupy when sufficient force is applied. The force that sends the head of the femur through the capsule, however, in the vast majority of cases, simply carries the articular extremity out of the socket, and does not tear away that part of the capsule opposite the opening. If the circle of the brim be divided into 360 degrees, it can truly be said that dislocations occur at every degree. The symptomatic phenomena characteristic of dislocations—the flexion, inversion or eversion, shortening or lengthening, abduction or adduction, etc.—are mainly due to the portion of the capsular ligament that has not been ruptured by the force that dislocated the limb. The capsular ligament gives way at the point where the head of the femur impinges upon it at the critical moment; in the majority of cases there is a simple slit in the capsule, or at most a straight buttonhole slit conjoined with a few fibres at the acetabulum, which give the capsular opening a "T" shape. As this opening will but rarely occur in exactly the same place in any two given cases, the symptoms developed by the traction exercised on the limb by the untorn portion of the capsule will seldom be alike in any two cases.

In order to comprehend the measures necessary for reducing a dislocation it must be borne in mind that certain movements of the lower extremity are associated. Thus, when abduction occurs, this movement is naturally accompanied by eversion, adduction by inversion, etc. A man falling from a height to the earth flexes his legs upon his thighs, his thighs upon his body and adducts his knees; that posture is instinctively assumed in which the greatest amount of force can be received by the feet with the least damage to the organism. Should the force be greater than can be disposed of without harm, a dislocation may be produced. If the thigh be extended and strongly adducted, the head of the femur passes directly upward through the top of the capsule. It may now assume one of these positions, it may remain with the head hanging over the acetabulum; the head may advance and the great trochanter recede; or the head may recede and the great trochanter advance. The dislocating force perforates the capsule and carries the head upon the brim of the acetabulum; the neck is surrounded by the borders of the rent in the capsule and held firmly by the untorn portion of that structure—the subsequent movements are accidental and may or may not occur. If the thigh be flexed and adducted at the moment that force is applied the position of the head of the bone will vary with the amount of flexion and inward rotation. As before, so here, the neck will be held by the untorn portion of the capsular ligament and the deformity that results will mainly be due to the tension it exercises. Should the force be applied while the limb is adducted, dislocation downward will occur. Should the thigh be hyper extended, adducted and rotated outwards, force directly or indirectly applied will carry the head of the femur forward upon the pubes. Should it be forcibly flexed upon the body, adducted and rotated inward it will emerge directly opposite the tuberosity of the ischium and may rest upon the prominence. Through injudicious manipulation of the dislocated extremity, the head of the femur when dislocated directly downwards may be carried towards the pubes or the ischium, and in certain cases when force is used it may even recede behind the ischium and pass without the internal obturator tendon. Between these typical and well defined dislocations there are many intermediate forms insensibly shading off into each other.

"The principles which should govern the surgeon in his efforts at reduction can be thus formulated:

"1. Place the limb in the position it occupied the moment it forced its way through the capsule, thus carrying the head of the femur opposite the opening through which it emerged.

"2. Manipulate the limb in such a manner as to relax the untorn portion of the capsular ligament.

"3. Draw or push, elevate or depress the head of the femur in such a manner as to carry it over the brim of the acetabulum, exercising this force by proper movements of the extremity, directed by the grasp the surgeon has on the leg, at the same time so moving the limb as to keep constantly relaxed the untorn portion of the capsular ligament."

TEALE ON ETHER VS. CHLOROFORM.—From his experience and study Mr. Teale reaches the following conclusion (*British Medical Journal*, March 11, 1882):

1. Ether, properly administered, is a much safer anæsthetic than chloroform. So much safer do I believe it to be, that I counsel every surgeon whom I can influence in the matter, to study the method of its right administration, and to let ether take the place of chloroform. The exceptions I make in favor of chloroform are: in infants, in patients subject to asthma or chronic bronchitis, and also, perhaps, in cases of abdominal obstruction, with difficult breathing, in which an operation has to be performed.

2. When many operations have to be done in rapid succession, to use ether is a great economy of time. A good "etherist" can get most patients under its influence in from one and a half to two minutes, whereas, in my experience, chloroform must be given from six to fifteen minutes before an operation can be commenced. I am aware that chloroformists trained in Edinburgh usually administer chloroform more rapidly than those trained in English hospitals.

3. A patient under the influence of ether is far more passive, and therefore in a more convenient condition for operation, than one under chloroform. As soon as the effect of chloroform is passing off, the patient becomes, as a rule, and often very suddenly, very sensitive to pain; whereas, in the case of ether, especially if the patient has been kept for some time under its influence, the return of sensibility to pain is very slow. In fact, a patient may become so far conscious as to converse with the physician while stitches are being placed in the wound, and at the same time be entirely unconscious of pain. This was not my experience of chloroform.

4. When ether is administered without food on the stomach, troublesome sickness is very rare.

5. In using ether, the safety and comfort of the patient, the rapidity of the anæsthesia, and the convenience of the surgeon in operating, depend very directly upon the method of administration employed, and the manner in which the administrator does his work.

6. There are good methods of administration of ether and bad methods, and there are good and bad "etherists." The varying opinions of the value of ether which prevail in the profession probably depend very directly upon the varying methods and manners of administration.

7. It is a bad method to give ether "on a towel," as first taught us by Dr. Joy Jeffreys, to whom England is deeply indebted for his successful crusade in favor of ether. This involves a great waste of ether, ten to twenty ounces being required. The patient's lungs are chilled, and bronchial râles, struggling, and maniacal excitement not unfrequently result. I, along with my colleagues, commenced ether under this system as a duty, and by no means an agreeable one, and held on doubtfully when I suspected that some patients probably died from the effects of the chilling of the lungs.

8. It is a bad method to give ether with the American basket-work frame, which, though not much better than the towel, served a good purpose as a step to better things.

9. The good methods are those in which the patient breathes over ether into an India-rubber bag, a method, I believe, introduced into practice by Dr. Ormsby of Dublin, and carried to further perfection by Mr. Clover. In this method, the patient breathes the same air over and over again for six or eight times, thereby economizing the heat of the air-passages, economizing ether, and enhancing the effect of the ether by partial asphyxia. My

experience of the use of Clover's smaller inhaler, under good management, is this: *a*. A patient can generally be ready for operation in a minute and a half, sometimes in less than a minute; *b*. There is rarely any struggling; *c*. Noisy excitement hardly ever occurs—perhaps, in my private practice, once in a hundred times; *d*. Râles in the trachea are but seldom heard; *e*. Instead of six or eight ounces of ether being used in a short operation, and sixteen to twenty in one lasting an hour or an hour and a half, half an ounce or less suffices for a short operation (such as "sphincter-stretching" or "iridectomy"), and two to three ounces for an operation of an hour's duration, such as colotomy or excision of a joint.

10. The administration of ether by inferior methods is still too common, and was until recently prevalent in some of our larger hospitals.

11. Even with Ormsby's or Clover's inhalers, there is an infinite variety of skill in different etherists.

12. In order to become a good etherist, the administrator must study how to give ether, must watch the patient attentively whilst giving it, and during the earlier inhalations must very carefully and studiously adjust the anæsthetic to the sensations of the patient.

13. A careful, attentive student, with tact, and not hard and unfeeling, can easily and in a short time be taught to give ether properly.

Since the adoption of Clover's inhaler, I have had singular freedom from anxiety about my anæsthetics—far greater freedom than in the previous period, when I had to depend upon chloroform.

Finally, I would say that this favorable opinion of ether is based upon my experience of its use by a series of very able administrators—some in the Leeds Infirmary, others whilst acting as my private clinical assistants. Speaking as a looker-on, rather than as an administrator, I should say that the chief points in the right administration of ether are: first, to overcome the nervous dread of the patient by applying the mouthpiece only; then to turn on the ether gently, until the glottis becomes tolerant and the patient is slightly unconscious; lastly, to complete the anæsthesia rapidly. In advising beginners, I compare the regulation of the quantity of ether to the "curve of harmonic progression."

HEMORRHOIDS TREATED BY FORCIBLE DILATATION OF THE ANUS.—Subbotin (*Med. Rec., London, Mejdunarodnaia Clinica*) advocates the following operation: This operation is forcible dilatation of the anus and lower part of the rectum, recommended, about thirty years ago, by Maissonneuve, and, after many years of oblivion, in 1876-77, again introduced into practice by Verneuil and Fontan, and later by Guyon, Trélat, and other French surgeons: The author, from his own experience, draws attention to the simplicity, safety, rapidity of curative action, and efficiency of this method, which is described by him as follows: On the day before the operation, the bowels are thoroughly opened by a purgative; and, immediately before the dilatation, the rectum is washed out by an enema. The patient being brought under the influence of chloroform, and placed on his left side, with his thighs fully flexed, the operator stands behind the patient and introduces a bivalved Recamier's anal spectrum. Then he gradually and cautiously opens the speculum (introduced down to its handle); and, when all the rugæ of the ano-rectal mucous membrane have been effaced by stretching, he leaves the instrument opened to its widest extent *in situ* for two or three minutes, and then removes it. With this action the treatment comes to an end, no after-treatment being required. The operation lasts about six to eight minutes. The immediate effects of the dilatation consist: 1, in a paretic state of both rectal sphincters, which exists three or four days, and then is followed by normal contraction of the parts; and 2, in complete relaxation or disappearance of the hæmorrhoidal varices. Small piles usually disappear at once, never to return; large ones remain visible for some time after the operation as soft, lax and empty capsules. These are gradually diminished, and, as a rule, finally disappear, or remain in the shape of simple polypi, causing no discomfort to the patient. According to the author, the action of dilatation in the treatment of hæmorrhoids is twofold. First, by relaxing the sphincters, it removes the cause of stagnation of blood in the beginnings of the hæmorrhoid veins; and, secondly, it expels the contents of the varices and compresses their walls in such a way as to cause their adhesion and obliteration of the cavity. Professor Subbotin points out only two contra-indications to forcible dilatation. They are, suppuration and incipient gangrene of the piles. In cases of highly tense and irreducible hæmorrhoids, he advises that the operation should be done in two stages: first, dilating by means of the fingers alone, and, some days later, proceeding with instrumental dilatation.

CARE OF THE TRACHEA AFTER ITS INCISION FOR THE RELIEF OF CROUP.—Dr. L. S. Pilcher (*Med. Record*, April 1, '82) formulates his views on this subject thus:

1. The proportion of cases of croup demanding incision of the trachea for their relief, in which an intra-tracheal exudate will be found present is so great that it should determine the method of operating in all cases.

2. This method should include the arrest of all hemorrhage before the opening of the trachea, and the careful exploration and cleansing of its interior after its section.

3. The point of incision should be as low as practicable. Rarely will it be found impracticable to reach the trachea and open it below the thyroid isthmus.

4. Serious disadvantages attend the use of a canula of any kind. Their entire suppression is desirable. If imperatively demanded, especial care should be exercised to employ one which shall reduce these recognized disadvantages to a minimum, and to excise from the edges of the incised tracheal rings sufficient of their substance to obviate any tendency to the production of any infolding of the opposite posterior wall.

5. Topical applications to the interior of the trachea may, in many cases, be important, and in some essential to recovery.

LATERAL CURVATURE OF THE SPINE—TREATMENT.—Dr. Bernard Roth (*British Medical Journal*, May 13, 1882), in an interesting paper insists on the following points:

1. A more careful description of the stage of lateral curvature is required, including the mention of any osseous deformity if present, and whether the patient can be at once restored to the normal position, or, if not, to what extent.

2. If osseous deformity be present, even to a slight extent, complete cure is impossible.

3. Many cases of apparently severe lateral curvature have no osseous deformity, and can be at once restored temporarily to a normal position.

4. A patient with confirmed lateral curvature, with or without osseous deformity, is so habituated to the vicious position, that attempts on his part to improve the spine, except with the help of the surgeon's instructions, generally increase the deformity.

5. Exercises of the spinal muscles, with and without resistance, by the surgeon or an assistant, while the patient is in an improved position, are absolutely necessary to the rational treatment of spinal curvatures not due to caries.

6. Good positions should be always assumed, not only at meals and at lessons, but whenever otherwise occupied. This is practicable in slight cases, even with ordinary backed chairs; in some cases, a couch, with horizontal seat and movable and mounted back, is necessary.

7. A moderate amount of walking, short of much fatigue, is beneficial.

8. Lying prone or supine does not tend to cure lateral curvature, as it does not strengthen the spinal muscles. Lying for a quarter or half an hour is useful when it rests the patient; but, if it be continued for several hours daily, only harm results from the physiological activity of the spinal muscles being prevented.

9. Sayre's plaster-jacket and other spinal instruments are injurious in all cases not due to caries, where the patient by an effort can maintain an improved position of the spine, even for a few seconds only. Sayre's jacket is only permissible when the sole object is to prevent further increase of extreme osseous deformity.

10. Swinging by the head does not strengthen the spinal muscles, and dates back to the time of Dr. Glisson, more than two hundred years ago. In Germany, "Glisson's swing" has been known and used for many years (see *Journal*, July 26, 1879).

11. By all vicious positions being avoided, good ones shown and maintained, and suitably prescribed exercises carefully carried out, better and quicker results are obtained in cases of lateral spinal curvature, than by any other treatment hitherto practiced.

I intend publishing shortly an abstract of fifty cases of lateral and antero-posterior curvature treated by me in private practice since Jan. 1, 1881.

CARCINOMA OF THE BREAST, INFLUENCE OF OPERATION UPON IT.—Dr. S. W. Gross (*Medical News*, Jan. 31, 1882) from data presented draws the following conclusions:

1. That surgical intervention in carcinoma of the breast tends to retard the progress of the disease by preventing local dissemination, implication of the associated lymphatic glands, and the development of visceral tumors.

2. That local reproductions do not militate

against a permanent recovery, provided they are freely excised as soon as they appear; and that lymphatic involvement does not forbid operation, since infected glands were removed in more than one-third of the examples of final cure.

That the subjects are almost without exception safe from local and general reproduction if three years have elapsed since the last operation.

4. That the risk from operations is outweighted by the benefits which accrue from them, since they not only add twelve months to life, but also cure more than one-half as many patients as they destroy.

5. That all carcinomata of the breast, if there are no evidences of metastatic tumors, and if thorough removal is practicable,should be dealt with as early as possible by amputating the entire mamma and its integuments, dissecting off the subjacent fascia, and opening the axilla with a view to its exploration and the removal of any glands which were not palpable prior to interference.

Therapeutics.

Notes on the Use of Phosphate of Lime in Chronic Bronchitis.—By Dr. V. Bidallet (in *Gazette des Hôpiteaux*).

Phosphorated substances, and the phosphate of lime in particular, being at the present day used extensively in the cure of disease, I consider it my duty to report a remarkable case of cure by the use of the last named remedy.

In August, 1879, I was consulted by a young man æt. 18, on account of chronic bronchitis. I found on examination dyspnœa on slight exertion, cough frequent, expectoration abundant, especially upon waking in the morning, loss of appetite, vomiting, prostration, emaciation and severe pains in the head. Pulse small, rapid, 98; temperature above normal; percussion gave negative results; auscultation gave rough respiration under the clavicles, as also at the supra and infra spinous fossæ, lower part of chest posteriorly gave sibilant râles, masking the normal vesicular murmur of those parts.

All these were grave symptoms. Diagnosis: Chronic bronchitis with advanced cachectic condition of the system generally.

The analysis of the urine voided in 24 hours gave: Urea, 11 grams; uric acid, a trace; sugar, a trace; phosphate of lime, 5 grams; 50.

His treatment had been wine of quinquina, cod liver oil, tar, demulcents; kept him on the same treatment, adding milk to his diet, his appetite being very poor. In November there was very little change perceptible. An analysis of the urine at that time gave urea, 14 grammes; uric acid, 45 centigrammes; sugar, a trace; phosphate of lime, 6 grammes, 40. My patient was fast losing the phosphates. The result attained was very significant; the proportion of urea was increased, but my patient was losing more phosphate of lime, the pains in the head were increasing.

He was very poorly through the winter, which he spent in a Southern town. Saw him the May following entirely discouraged. Kept him on milk treatment and cod liver oil, one tablespoonful per day, and commenced treatment with phosphorus, syrup Reinvillier, three tablespoonfuls per day, before meals, equivalent to nine grammes phosphate of lime per day, his chest being rubbed with phosphorated oil every morning. Advised him country life. I saw him again the last of August. The cough and pains in the head had very much diminished and he could then take long walks. The same treatment was followed up till January, 1881. The cough and pains had disappeared, temperature normal; auscultation showed that the râles had disappeared also; expectoration very slight, appetite good, sugar had ceased to appear in the urine, urea and uric acids were found in normal quantities and the loss of the phosphate of lime had ceased. Stopped the milk treatment, the cod liver oil and the frictions, and kept up for three months the syrup of Reinvillier at the rate of two tablespoonfuls a day. Have seen him since—health restored.

Don't this report, whose details I have left out, go to strengthen the position held by the phosphate of lime as a reconstituant, and on the importance of the loss of the phosphates in chronic diseases?

Inhalation of Medicated Vapors in Diseases of the Respiratory Organs.—Guillemin(*Archives Med. Belges--Lond. Record*) summarizes his views as follows:

1. The affections of the mucous membrane of the respiratory passages may in certain cases be advantageously treated by inhalations of medicated vapors.

2. In the first stage of acute inflammation of this mucous membrane, pain, cough, and painful sensations, which are the consequence of irritation and dryness, are rapidly calmed

by inhalations of warm, moist, and aromatic vapors.

3. The calming action is still more decided if to the liquid, which serves for inhalation, there be added a small quantity of certain volatile calmative substances such as ether, distilled cherry-laurel water, or conium.

4. Frequently renewed inhalations of essence of turpentine, when they are administered at the commencement of the first period of inflammation, may arrest its progress.

5. The vapor of iodine exercises an irritant action on the mucous membrane of the air-passages. It induces efforts of coughing, and augments the secretion of the mucus of the air-passages. This irritating action may be utilized: (*a.*) To diminish the swelling of the mucous membrane by causing the inflammation to pass from the first to the second stage; this indication is present especially in cases where the inflammation occupies the small bronchi; the swelling of the mucous membrane is sufficient to give rise to fear of respiratory insufficiency; (*b*) To diminish the viscosity of the products of morbid section by their admixture with the mucus, of which the vapors increase the formation; (*c*). To induce efforts to cough, and to disembarrass the air-passages from the products which are there accumulated.

6. It is not only by its irritating properties that the vapor of iodine modifies the mucous membrane of the air-passages. Iodine in reality, possesses the property of stopping purulent secretion, and, on the other hand, it arrests and prevents putrescence. Thus, when the mucous membrane of the air-passages yields a purulent secretion, resulting either from an acute inflammation in the third stage, or from a chronic inflammation, the inhalations of iodine will determine by degrees the quantity of pus, and finish in certain cases by entirely changing the nature of the secretion, which becomes completely mucous.

7. Although the essence of turpentine, in the fluid condition, is a sufficiently powerful irritant for the tissues with which it is placed in contact, inhalation of this essence is easily supported by the mucous membrane of the air-passages. It only brings on very moderate irritation, and very rarely provokes fits of coughing.

8. When the mucous membrane is affected, and yields a product of secretion, these vapors have the effect of diminishing the quantity and augmenting the consistence of this.

9. If the product of secretion be purulent, the inhalation of essence of turpentine, continued during a sufficiently long time, progressively diminishing the quantity of pus, may, in certain cases, completely stop the secretion. The inhalations are indicated in all affections of the larynx, of the trachea, and of the bronchi, when accompanied by a very copious muco-purulent secretion without viscosities. On the other hand, the use of them must be avoided whenever expectoration is difficult, in consequence of the too great viscosity of the products of secretion.

10. In cases when these products are at the same time very copious and very viscous, it is possible, by alternate inhalations of vapors of iodine and vapors of turpentine, to rapidly diminish the quantity of secretion without increasing its viscosity. The inhalation of iodine should always be used in the first instance.

11. Inhalation of essence of turpentine is indicated in hæmopytsis, and is very successful in cases of hæmoptysis of average intensity.

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Toxicology.

POISONOUS CRAYONS.—The following important facts are given by the *British Med. Journal*, May 6, 1882. Last Saturday, Mr. Carttar, the coroner for West Kent, held an inquest presenting several points of medical interest. From the evidence, it appeared that, on April 1st, a little girl aged two years and six months was noticed to be feverish and restless, and was reported to have had a bad night. The following day, she vomited constantly, was unable to take any food, and suffered greatly from thirst. Dr. Kavanagh, who was in attendance, considered that she was suffering from severe gastric catarrh, induced probably by sucking cheap colored crayons, the pink mark of one of which was noticed on the child's mouth. It was also reported that the child had had a fall, but the date of the accident appears not to have been ascertained; and it is stated that there was no mark or bruise on the head indicating an injury. In a few days, the child rallied, and it was thought that all danger was over; but, on the twenty-third day of the illness, she was seized with convulsions, and the next day she died. On making a post mortem examination, Dr. Kavanagh found that all the organs were healthy, with the exception of the brain and stomach. The left side of the brain is reported to have been distended with fluid, whilst the stomach presented signs of acute inflammation, and in two places perforation had occurred. Either the effusion into the ventricles or the condition of the stomach might, it was considered, have accounted for the fatal issue. An analysis of the crayons showed that they all contained poison. The most poisonous was a pink one, which consisted of more than half its weight of white lead, colored with an innocuous vegetable substance. The weight of this crayon was five grains. Another crayon contained Prussian blue, mixed with Dutch pink. The jury returned a verdict that deceased died from convulsions, brought on by an accidental fall on the head, death being accelerated by swallowing poisonous crayons. The case presents so many points of interest, that it is hoped that a more detailed account of the symptoms and the post mortem appearances will be published. Lead is introduced into the system in so many ways, that it would be most interesting to know definitely if sucking crayons is to be added to the number. Dr. Kavanagh could probably give us valuable information as to the state of the bowels during the twenty-three days that the poor unfortunate child lingered on in agony. Was there diarrhœa or constipation? What was the condition of the urine? Were there any signs of paralysis, and was there a blue line on the gums? It would be interesting to know, too, what treatment was adopted, and if the contents of the stomach were analysed. In a case of poisoning by white lead published many years ago, the child—a boy aged 5—swallowed a piece as large as a marble. He suffered from abdominal pain and constipation for three days. On the third day, vomiting ensued, the body was coverered with petechiæ, and the gums were tense and white. He died in ninety hours from the administration of the poison; and, at the post mortem examination, a quantity of blood-stained fluid was found in the pericardium, the lungs were engorged, the liver, heart, and kidneys were soft and flabby, and the stomach was intensely inflamed. No trace of lead was to be found in any of the tissues.

THE NEW CADAVERIC ALKALOIDS.—Dr. N. B. Sizer (Proceedings Medical County Kings, May, 1882) concludes a very able paper on this subject thus:

The poisonous alkalies of cadaveric origin are distinguished, not only by their *basic* qualities and their powerful reducing properties, but also by their greater or lesser poisoning power, and their other physiological effects, such as dilatation, irregularity and final contraction of the pupil; interference with the cardiac rhythm; stupor, tetany and death, with a systolic heart; want of coagulability of the blood; loss of muscular contractility, persisting after death, even in spite of the galvanic induced current. These facts are true, not only of Selmi's "ptomaines," arising from the putrefaction of the albuminoids, but also of certain toxic compounds contained in the normal excretions and secretions of the higher animals. Ptomaines and serpent venom belong to the same chemical family as the alkaloids in normal saliva.

The venomous substances appear not to be pathological exceptions, or putrid products merely, but more like residues left by the tissue metamorphosis, capable, under abnormal circumstances, of accumulating in the blood, or, in a normal condition, of excretion by certain glands, for definite purposes, the most varied and diverse.

Gautier insists on the somewhat novel statement, that although oxygen penetrates all through the body and is intimately related to vital processes, yet we must not necessarily argue that the processes of assimilation and disassimilation depend upon the presence of oxygen, and considers that the tissue life of the higher animals is largely independent of the air. He quotes certain experiments of Pettenkoffer and Voit, which show that, in a certain dog, it appears that out of 1,599 grammes per day of excreted oxygen, at least 100 grammes must have arisen in the body from its autonomous combustion.

This 100 grammes seems to be furnished by the organic matter of the body, and it is estimated that about $\frac{1}{6}$ of the internal combustion must be independent of extraneous oxygen. These changes, then, are very like those observed in putrefaction in the absence of the air, and hence it is conceived we may expect to find the origination of similar products.

Hence, in our secretions, we find "products of putrefaction," so called, such as carbonic acid, ammonia, free and combined, acetic, butyric, and the higher fatty acids, lactic succinic, phenylacetic and phenylpropionic acids, xanthine and sarkine, hydrogen, nitrogen, sulphide and phosphide of hydrogen, etc., so that the identity is almost complete. This being the case, ought we not, *à priori*, to expect to find in the tissues and secretions of the body, in life or after death, these organic alkaloids? It seems to me that "uræmia" is now thoroughly understood.

In closing, I can but quote the words of Charles Robin, so full of truth: "We have been led to say that ferments, contrary to what we now know, were a sort of peculiar beings, and that fermentation was a phenomenon produced by the force of nature instead of being, as it really is, a physio-chemical reaction like all those which occur naturally in organized beings."

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Pneumonia in Children.

BY WM. T. PLANT, M. D., PROFESSOR OF CHILDREN'S DISEASES IN THE COLLEGE OF MEDICINE OF SYRACUSE UNIVERSITY, SYRACUSE, N. Y.

GENTLEMEN: The subject that will occupy us for this hour is pneumonitis, a disease that is sufficiently common at all ages, but especially so in early life, and the cause of a considerable mortality.

The first fact that I wish to impress upon you is that it occurs under two forms which are etiologically, anatomically and clinically distinct.

One is known as lobar or croupous pneumonia. This is the kind that is mostly met with in adults as well as in children of more than five or six years. In infancy-this form is rather rare. There is little to distinguish its course in childhood from that of mature life and as you will find it well described in your works of practice I shall only point out briefly its salient features.

It is, with infrequent exceptions a primary disease. It comes, generally, from taking cold and it occurs oftenest, of course, when the weather is changeable and inclement. It has rather an abrupt beginning, which, in childhood, may be marked by a chill or a convulsion. Soon there is fever which rapidly increases. It is a high temperature disease; 103½° is probably not above the average.

A cough appears after some hours, which is, or soon becomes a frequent, restrained and apparently painful hacking, that is in striking contrast with the the tearing, reckless cough of a simple bronchitis.

When the disease is fully developed the pulse is rapid; the breathing is short, panting and hurried, and each expiration is attended by a characteristic moan. The cheeks are flushed, often crimson or dusky; the eyes are brilliant and with every inspiration the alæ nasi visibly expand. Often there is headache and wild delirium or somnolence. Sometimes these cerebral symptoms are so pronounced as to mislead the unwary practitioner into making a diagnosis of cerebral inflammation. This is especially apt to be the case when, as sometimes happens, there is little or no cough, and when vomiting is an early symptom. Such cases have been called "cerebral pneumonia" a meaningless misnomer that I mention only to ask you to avoid. If you are carefully observant of all the symptoms you will not make this mistake. The characteristics of pneumonia that will serve you in making the differential diagnosis are a higher temperature, more rapid breathing, the expiratory moan and dilating nostrils. Besides, in cerebral inflammation as well as in fevers for which pneumonitis is also sometimes mistaken, there is an absence of chest signs. But just here I would have you remember that physical exploration will not always enable you to make an early diagnosis, for the crepitant rale characteristic of commencing pneumonitis is not very readily heard in the young child owing, I presume, to the small size of the vesicles; and if the inflammation happen to begin in the centre of a lobe, it may be three or four or five days before it is near enough to the periphery to give rise to appreciable dullness on percussion.

During this time important changes are taking place in the affected lung—for commonly but one lung is affected. If both are involved the danger is much greater.

The inflammation first seizes on one lobe and it is about as likely to be an upper as a lower one. It is quite different, as you know with the pneumonia of adults. It may or may not extend to other lobes. Why it should show a marked preference for the right lung, I cannot tell you, but such is the fact.

The over-full blood vessels are at length relieved by a copious extravasation of a portion of their contents. A fluid in which fibrin and blood corpuscles richly abound is poured into the air cells, where it coagulates. From this circumstance this kind of pneumonia is sometimes spoken of as "fibrinous." The organ, or so much of it as has participated in the inflammation, is now solid and granular like the liver—red hepatization. Its color also is heightened, though I think it is usually somewhat paler that the liver. After a while the corpuscles disintegrate, the coloring matter is absorbed, the fibrinous filling of the vesicles becomes fatty, and we call this grey, or better, yellow hepatization.

If you lay your ear to the chest after the air cells have become solid, you may detect bronchial breathing and bronchophony, and you will be struck with the strong contrast between the exaggerated vesicular murmur of the normal lung tissue and its entire absence in the diseased portion. Percussion will yield marked dullness.

Usually between the fifth and tenth days—average about the seventh—a distinct crisis occurs and the child takes a sharp turn toward convalescence. The temperature suddenly falls to below the normal, the fever abates, the face becomes pale, and the appetite returns. Frequently the crisis is marked by profuse sweating, or an unwonted activity of the kidneys or bowels. Recovery from this form of pneumonitis is, in well nourished children, quite rapid. Within a few days the effused material may be wholly removed by a process of fatty degeneration, absorption and expectoration, and the integrity of the organ fully restored.

Recovery from lobar pneumonia is the rule—death the exception. If the child has been weakly and poorly cared for, there is more danger than in the robust.

Another fact I wish to note particularly, and that is, that this form of pneumonitis occasionally steals on in the course of other diseases in such an insidious way, without cough, without pain, that you do not suspect it until, perhaps, taking a hint from the quickened respiration, you examine the chest and are surprised to find a solid lung.

I must tell you, too, that an acute lobar may degenerate into a sort of chronic pneumonia, with consolidation, persisting for weeks and months, possibly an abscess forming with expectoration of purulent matter.

The second form of pneumonitis is known as lobular or catarrhal. It differs from the first, as I shall show you, in many ways. It is always, so far as I know, a secondary disease, and its coming is usually gradual, rather than abrupt. Often it creeps in on the course with bronchitis, measles or whooping cough. It has been called broncho-pneumonia from its very frequent association with bronchitis. This is *the* pneumonia of infancy. We seldom meet with it after the fifth or sixth year, but previous to that age, and particularly during dentition, it is very common. It is almost always double, though predominant in one lung.

Its limitations are not lobar, but lobular. When we inspect the lungs after a death from this form of pneumonitis, we do not find one or two perfectly solid lobes, but scattered here and there, though not uniformly, are bluish or grayish-red solid nodules, with normal lung tissue between them. These nodules vary much as to size. Some you will find as small as a pea; others many times larger, owing to inflammation of several contiguous lobules. We generally find the lower parts of the lungs more affected than the upper.

The exudation differs in quality from that of the lobar form. It is more serous than fibrinous and contains great numbers of epithelial cells.

Symptoms.—First of all, the infant has a bronchial catarrh, which may be caused by a cold or by some co-existent disease, as measles, or whooping-cough. Gradually—sometimes suddenly—there is a change for the worse. The patient becomes peevish, feverish and restless. The cough grows more frequent, but more subdued and restrained. You may often notice that the child winces or cries with every attempt at coughing. The temperature rises, but not so high as a rule as in the lobar form; 102° is a good average. It is more fluctuating also, and there is a frequently recurring increase of fever, caused no doubt by recurring advances of the local inflammation. The breathing is quickened in proportion to the extent of lung involved. It may get to be as rapid as sixty or even eighty a minute. In this, as in the other form, severe cases are attended by expanding nostrils with inspiration and a moan with expiration. Some of the books speak of it as an accentuated expiration. You will find these two symptoms important aids to diagnosis. When the disease is at its height, you will be strongly impressed with the character of the breathing. Though all the accessory muscles are giving their best help, it is accomplished with great effort, and any change of position makes it more labored and panting. The infra-mammary region sinks in with inspiration as do likewise the intercostal spaces—sure evidences of incomplete expansion. Very likely you will find in a bluish pallor of the face and lividity of the lips and fingers further proof of incomplete decarbonization of the blood. Owing to the dyspnœa the infant keeps its mouth open to get more air, and this makes the tongue very dry. If never so hungry the nursling drops the nipple after a moment's greedy work, and with open mouth gasps for air.

There is something worth noticing in the cry of a child with pneumonia. It is neither loud nor sustained. Vociferous bawling is incompatible with this disease. The cry is rather a subdued and interrupted moaning, not very loud but none the less expressive of real suffering.

When the disease has so far advanced that the brain is supplied with venous blood, the aspect of the infant, hitherto expressive of great discomfort and anxiety, changes to apathy and drowsiness or even stupor.

You should make the most of these rational signs, for it is quite likely that auscultation and percussion will give you few points on which to base a diagnosis. You are confronted at the outset with the opposition of the child and a chest filled with the noisy rattling of bronchitis. Crepitant rales, if present, could not be heard. In the next place, the inflamed nodules may be so small and scattered that you cannot satisfactorily make out either bronchial breathing or bronchophony or dullness on percussion. Besides, both lungs being affected, you are without a standard for comparison.

Lobular pneumonia is without the distinct stages of lobar, nor does it like that run a definite course and end in a crisis. It is usually more prolonged and it may extend over a month or two. It is very apt to spread through the lungs until the infant dies from apnœa and exhaustion. Particularly is this the case when it accompanies measles or whooping-cough. The younger the infant, the greater the danger.

Many cases, however, do recover. In these there is a gradual decline of fever with occasional exacerbations. The return to health is halting and delayed. Months may elapse before the chest is free from morbid sounds, and for a long time there is a liability to taking cold on slight exposure.

I have farther to remark that the difference between the two forms of pneumonitis is not always so well marked as my description of them might lead you to believe. There are, though rarely, cases that seem to partake about equally of the symptoms of both forms and a differential diagnosis may be impossible. Practically this is of small consequence as the principles of treatment are the same in both and the details are not very dissimilar.

Treatment.—In diseases that run a definite course tending to recovery there is no call to be over-officious with remedies. Lobar pneumonia is such a disease. Doubtless in most cases recovery would be as speedy and complete without medication as with it. But up to a recent period its treatment even in children was heroic indeed. Bleeding, leeching, blistering, tartar-emetic and calomel were the weapons chosen for its dethronement. It is doubtful if the cure was often hastened by these means; it is very certain that convalescence was often retarded by them. Now-a-days our treatment of lobar pneumonitis is watchful and expectant rather than aggressive. Without hoping or attempting to shorten the usual and pre-determined course, we try to keep it within safe bounds and alleviate suffering by modifying and controlling troublesome symptoms.

The high temperature and pungent surface heat may be lessened in different ways. Frequent sponging with cool or tepid water has some effect and contributes greatly to the comfort of the patient. If the temperature and fever are excessively high the wet pack may be used and in this way: The child—naked—is wrapped about with a sheet wrung from hot water and placed between flannel blankets and well covered. Profuse perspiration follows which may be kept up for some time.

Aconite is a valuable agent in this sthenic form of pneumonia. You may give with assurance of safety from a half to the eighth of a drop of the tincture every half hour until sweating occurs. It should then be withdrawn or given less frequently. Quinia in sufficient doses will also reduce temperature. I have rarely, if ever, given to young children more than .2 or .3 grams—3 to 5 grains. We need have no concern over a moderately high temperature, for we know that the crisis soon to come will cause a rapid fall.

Then as to the cough: during the first days, while it is still tight and painful, I find nothing better than the ipecac and licorice mixture:

		Grams.		
℞				
	Pulv. ipecachuanhæ....		5	grs. viii.
	Pulv. ext. licorice.....		2	grs. iii.
	Sacchari alb...........	15		℥ ss.
Misce.	Aquæ, fl..............	90		fl. ℥ iii.

Sig. Teaspoonful once in two or three hours.

If the fever is high and the child strong I often add .06—gr. i. of tartar emetic to the prescription.

Or we may give with equally good effect a few drops each—say five—of wine of ipecac and antimony. When, at length, the cough has become loose, if the secretion is over free, you may venture on the use of bronchial stimulants, like the following:

℞	Grams.	
Ammonii carb.........	3	grs. 45.
Syrupi senegæ, fl.......	15	℥ ½.
Syrupi tolutani bals., fl.	45	℥ 1½.
Tinct. opii camph., fl..	15	℥ ½.
Aquæ, ad fl...........	120	ad ℥ 4

M. Sig. Teaspoonful once in three hours.

Good nights may often be secured by .06 to .12—one to two grains—of Tully or Dover powder given at bed-time.

All authors recommend applications to the chest both for derivation and the relief of pain. Large blisters and poultices of clear mustard have had their day with children and have fallen into merited desuetude Of the old rubefacients not one has held its own better than the turpentine fomentation. A flannel, large enough when doubled, to cover the affected lung or better the entire chest, is wrung from hot water, sprinkled with turpentine, applied, and covered with oil silk. In from fifteen to thirty minutes the integument will be found of a scarlet red color. The cloth may then be removed, to be reapplied after some time. Kerosene oil may be used in the same way. These are good applications and I know of no objections to them other than the odor. More popular and perhaps more serviceable are warm poultices with or without mustard. Eustace Smith prefers hot linseed meal poultices, large enough to cover the side and thick enough to hold their heat for some time. Vogel advises a "moist girdle" made in this way: A napkin folded to a width of three or four inches is wrung from tepid water and passed around the chest. This should be covered by a band of gutta-percha or oil silk. Over all is wrapped a dry cloth larger and broader than the first. The under cloth may be wetted without removal by turning back its coverings and pouring on a little water.

Henoch, again, likes cold applications, and thinks the deep inspirations that they compel the child to take are sometimes of use in preventing pulmonary collapse. He surrounds the thorax "from neck to umbilicus" with a napkin wrung from water of the temperature of the room. A roll of batting is placed over this and the whole covered with a layer of some impervious fabric as oil silk. He advises the renewal of this dressing as often as every half hour while the fever is high.

As for myself, I have usually ordered a thin flax-seed meal poultice fortified by a little mustard—say one part to sixteen, and covered with oil silk.

I apprehend there is little difference in the therapeutic value of these several applications, unless, as is quite possible, the greater evaporation from the water dressings causes a sensible reduction of temperature. The violent delirium that attends on some cases of lobar pneumonia may be lessened by an ice-bag to the head and large doses of bromide of potassium.

In the treatment of lobular pneumonitis there are at the outset some considerations that should engage your attention. It occurs principally in infants; it is almost always secondary to some other serious disease; its course is indefinite and often prolonged and it involves both lungs; therefore, particular attention should from the very first be given to the child's support. Stimulants should be resorted to as soon as your diagnosis is made out and they may be used freely.

I know of no better expectorants for this form than those mentioned above. I would not, however, give antimony at all and the stimulating expectorants, ammonia, senega, tolu, etc., are often required from the outset.

If the bronchial tubes become so burdened with accumulated secretion as to interefere with breathing, an emetic will bring instant, though too often but transient relief. Perhaps the wine of ipecac is the best agent we can employ for this purpose. Your good judgment will restrain you from depressing the little one with emetics when they are not absolutely necessary. Towards the close of cases that are to end fatally, emetics if given are apt to be retained, increasing the existing prostration.

All that was said before about poultices and fomentations is doubly applicable here and they are by no means to be left out in the treatment.

You will see to it that the bowels are occasionally moved but do no think to gain anything by free purgation.

When, after a pneumonitis of either sort, the lung does not clear up as it should and you find on examination after some weeks a continuance of bronchial rales, with dulness perhaps and quickened breathing, there is need of the most watchful care and intelligent treatment to prevent cheesy degeneration and phthisical cavities. Make use of all up-lifting measures. Cod-liver oil, tonics, probably iron and quinia, plenty of milk and meat; iodine liniment and other stimulating applications to the chest; daily sponging with or plunging in cool water, such are the agencies on which you must rely for a cure. In bad cases surprising improvement sometimes follows a judicious change of residence.

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Action of the Ileo-Cæcal Valve.

BY DR. W. B. SPRAGUE.

Paper read before the Calhoun Co. Medical Society.

THE teachings of our text-books respecting the action of this little gateway would make us believe that a return through the gate of death or of the Happy Valley of Rasselas might be as easily effected as a backward passage through its portals. But whether this were so or not would have little of interest to the physician, beyond the mere gratification of curiosity, were it not for its probably important bearing upon the question of alimentation *per rectum*, which is yearly assuming greater importance to the medical profession. This method of nourishing the system is not novel, for all down the past century, at least since 1822, Hood, Steinhäuser, Schultzer, Meisner, Frerichs, Leube, and others, have given us records of experiments and observations upon this subject. But that its value has not been generally appreciated, we are led to believe, when we find so able and progressive a man as Niemeyer stating, in his text-book on the practice of medicine, as late as 1869, in treating of stricture of the œsophagus, "When there is inability to swallow, we make the almost hopeless attempt to nourish the patient by enemata." An impetus was given to the subject by the reading of a paper and its discussion before the New York Academy of Medicine, Dec. 20, 1877. Dr. Austin Flint, the author of the paper, mentioned a number of cases in which life was sustained for several weeks, months, and even years, by rectal alimentation. Drs. Barker, Peaslee, A. H. Smith, and Gouverneur M. Smith, also mentioned cases observed by themselves, and in the London *Lancet*, Dec. 8, 1877, is an abstract from a German journal, reporting nine cases treated by Dr. Kauffman in the Kölner Bürger Hospital, sustained by a pancreatic preparation, administered *per rectum*, for nine or more months. Dr. Flint says: "Leube assumes at the outset, that milk, eggs and meat broths are unsuited for rectal alimentation. In this he is in error, as shown conclusively by clinical experience." One of the cases reported by Dr. Flint was nourished for one year and three months by injections *per rectum* of milk and Liebig's extract of meat only. Her general conditions improved under this treatment so much that she was able, toward the latter part of this period, to visit friends at a distance. Dr. G. M. Smith referred to a case in which there was a marked increase in weight as the result of injections of milk alone. But none of these observers conceived but that whatever of digestion occurred must have occurred in the rectum, or at least in the large intestine. Upon this subject, Flint says: "From the failure to procure from the mucous membrane of the colon and rectum a digestive juice, and from experiments on the lower animals, physiologists have been led to doubt the ability of these portions of the alimentary canal to perform the function of digestion. Yet secreting glands analogous to those of Lieberkuhn are found in considerable numbers in the large intestine, and it is not difficult to understand that they may take on a vicarious activity when the glands of the stomach and small intestine are not excited by the presence of ingesta. This supposition is not inconsistent with the absence of a digestive juice in the larger intestine when digestion in the stomach and intestine is not interrupted. Another supposition, which I will venture to make, is that food introduced into the rectum excites secretion by the gastric and intestinal glands, and in the absence of ingesta in the stomach and small intestine, the fluids secreted by these glands pass into the large intestine in a sufficient quantity to effect digestion within the latter. Whatever may be the explanation, clinical experience fully establishes the fact that the digestion of animal broths, milk and eggs, takes place in the rectum without the addition of agents, namely, pepsin and hydrochloric acid, which are capable of effecting artificial digestion."

Is he warranted in this conclusion? Why not suppose that the food might travel upward and be digested by the fluids in the small intestine as well as that the fluids should be brought down to digest the food in the rectum? It is probable that the above mentioned views respecting the action of the ileo-cœcal valve wholly precluded such a view of the case, just as they have led many to doubt the reality of stercoraceous vomiting, contrary to the evidence of their own senses. Trousseau's Clinical Medicine, vol. iv. p. 213, says, "Fecal matter, properly so called, that is to say, matter contained in the large intestine, cannot be ejected by the mouth, even when the obstruction is seated in the cæcum, the colon, or the sigmoid flexure, because the ileo-cæcal valve, if it has retained its normal structural relations, constitutes an insurmountable barrier to the passage of matters from the large to the small intestine." Niemeyer's text-book of Practical Medicine, vol. i, p. 594, says: "There has been much dispute as to whether stercoraceous vomiting could result from obstruction of the small intestine, or if it could only occur in closure of the large intestine, where the formation of fæces proper begins. We should bear in mind that even the contents of the ileum, particularly if they have been there long, may have a feculent odor, and that in so-called fecal vomiting actual fæces are rarely, if ever, vomited. I consider it improbable that the contents of the large. intestine should pass the ileo-cæcal valve, and enter the small intestine and stomach." Flint says, Practice of Medicine, p. 421, "A truly stercoraceous vomiting, however, rarely, if ever, takes place, that is, the contents of the large intestine are not ejected. This could, of course, only happen when the obstruction begins below the cæcum, which is extremely rare; but, even if the cæcum be above the seat of the invagination, the ileo-cæcal valve, certainly in the great majority of cases, effectually prevents regurgitation from the large into the small intestine. Experiments and clinical observation show that the ileo-cæcal valve will sustain an amount of pressure sufficient to cause rupture of the intestinal walls." Austin Flint, Jr., Text-book of Physiology, p. 289, says, "It is evident from an examination of these parts that pressure from the ileum would open the slit and allow the easy passage of the semifluid contents of the intestine; but pressure from the cæcal side approximates the lips of the valve, and the greater the pressure the more firmly is the opening closed." Marshall's Physiology, p. 517, says, "Once having passed the valve, no force exerted upon the intestinal contents can ever return them into the small intestine, the valve segments, owing to the elasticity and muscularity of all the parts, meeting closely together under every change of dimensions. Even after death, when the parts are removed from the body, water poured into the colon, is, owing to the closure of the valve segments, completely prevented from passing into the ileum."

Never having had my attention called to other views of the subject, I attempted to demonstrate this character of the valve to the class in Detroit Medical College Physiological Laboratory in the autumn of 1880. To my surprise I found that the ileo-cæcal valve of the dog, after death, would allow passage of water from the colon, though only very slight pressure was exerted. This fact together with a little reflection upon my experience with enemas led me to make the following experiments:

Experiment 1. Nov., 1880. Injected about 1½ pints of colored water into the rectum of a medium sized dog which had been dead for twenty-four hours, the abdomen being intact. Subsequent dissection showed that the water had penetrated to the stomach.

Experiment 2. Dec., 1880. Injected one quart of colored water into the rectum of a living dog, below medium size. Vivisection immediately following showed the water throughout the length of the small intestine.

Soon after this I conceived the idea that it might be possible that the injected food in rectal alimentation passed above the ileo-cæcal valve and was acted upon by juices of the small intestines. I therefore performed another experiment.

Experiment 3. Feb. 24, 1881. A dog with a gastric fistula had lost the canula out, and being left in a room with food and water for several days had devoured and redevoured the food and when found was almost continually lapping water, but since both food and drink passed directly through the fistula he had become very much emaciated. I embraced the opportunity and injected four ounces of colored milk into the rectum. Vivisection was performed within an hour and the "curdled colored milk was found from the anus to the duodenum." I quote from my notes taken at that time. I would also state that directly after the injection the dog lay quietly down and went to sleep.

The question now arose in my mind whether the condition of hunger had anything to do with this apparent reversal of the usual order of nature's laws. To determine which I performed still another experiment.

Experiment 4. March 1, 1881. Took two

dogs, one of which had been starved for two days and the other one had been fed bountifully, and injected four ounces of colored milk into the rectum of each. The hungry dog was partially anæsthetized at once, and ejected nearly all of the milk, probably from the effects of the ether. The same amount was injected again as soon as he recovered from the anæsthetic and he was allowed to go free for a few minutes. He retained it. A vivisection now found "red milk from the anus to near the duodenum." The well-fed dog had ejected a small portion of his enema. A vivisection was made an hour after the injection and "colored milk was found throughout the colon, but none had passed the ileo-cæcal valve."

In reflecting upon these results it seemed fair to conclude that there is probably a reversal of the normal peristalsis in those conditions where nutriment is needed by the system and where it is placed in the lower bowel, which carries the supply to those portions of the digestive tract where it may be prepared and absorbed. Upon mentioning these results and conclusions to Professors Wyman and Connor, they referred me to an article by Dr. H. F. Campbell, of Augusta, Ga., published in the transactions of the Gynæcological Society for 1879, entitled "Rectal Alimentation in the Nausea and Inanition of Pregnancy." From this article I found that the ideas which I had conceived to be original had already been rendered quite probable by Dr. Campbell's experiments and observations. He terms the reversal of peristalsis "retrostalsis" and the forcing upward of nutriment he calls "intestinal inhaustion." In support of this theory he reports the following observation: "On the completion of the injection, more or less gurgling within the abdomen, and some obscure movements of the intestines were often perceptible. At first this was regarded as an indication that the nutritive enema was provoking peristaltic action, which might cause it to be expelled. On several occasions I inquired of the patient if she felt any uneasiness indicating the loss of the injection. Her answer at first surprised, but also satisfied me as to the perfect safety of the retention: 'No, doctor; that sound and movement always follow the enema; they are sometimes perceived at once, and sometimes later, but I always feel easier after that rumbling takes place. I think it is the beef tea going up into my bowels, for, after that, I never feel any disposition to pass it off.' Daily personal observation convinced me that the movement was an upward one. It continued sometimes for more than an hour, in a less obvious manner, as was noted by the patient and an intelligent relative in constant attendance." To substantiate the conclusions drawn from his observations he made some experiments with the lower animals. He reports that, having sustained a kid for eighteen days upon rectal injections of milk colored with madder and cochineal, an autopsy revealed the following: "On opening the abdomen, and previous to slitting open the intestinal wall, dark-red discolorations were seen occupying many inches of the tube, though not continuous throughout. These were found in all parts of the tract, from the anus to the maws. On slitting the tube, these parts of the intestine were found to contain the coloring matter of the injected aliment. The fluid was carefully examined, though no test was applied. In none of the physical appearances did there seem to be any occasion for doubt. In addition to the colored fluid, large numbers of the fæcal scybala or 'balls' were scattered throughout the whole length of the tube. The larger proportion of them consisted of matter which was colored by the stain of the cochineal and madder. I have retained the viscera of the kid which was used in the above experiment, preserved in a solution of chloral. Whether an examination of sections of the intestinal wall and of the mesentery will detect the coloring matter in the lacteals I have not as yet had proper opportunity to determine." After an able discussion of the subject from these and other data, he draws the following conclusions:

"1. That the exhaustion resulting from gravid nausea not infrequently demands a supply of food over and above that which can be retained by the stomach. Death has resulted from the inanition thus produced.

2. That the number of well authenticated cases on hand—ranging from three months to five years—fully demonstrate the adequacy of rectal alimentation to sustain nutrition unassisted by other means of ingestion.

3. That rectal nutrition requires rather an explanation of its rationale than a demonstration of its truth.

4. That water and tenuous nutritious and medicinal solutions are probably absorbed directly into the blood, or by the portal radicles and mucous membrane of the rectum and colon, for digestion in the liver.

5. That the digestion of composite aliments is never effected in the rectum or colon,

on account of the absence of the "digestive fluids" universally recognized as indispensable to their disintegration and solution. Their undissolved condition and the absence of absorbent vessels in the rectum and colon prevents their entrance into the blood from these portions of the alimentary canal.

6. That the admixture artifically (Leube) of digestive principles, pancreatic juice, etc., with the injected food, is not necessary or important to the efficiency of rectal nutrition.

7. That the "vicarious secretion" (Flint) of the elements of the gastric juice, pancreatic juice, and other digestive fluids by the glandular structures of the rectum, for the preparation of the rectal aliments, is highly improbable, and certainly not necessary to accomplish their ultimate digestion and absorption into the blood.

8. That the secretion of these fluids from their proper surfaces and glands (Flint), as the stomach, pancreas, liver, etc., and their descent into the rectum, may also be denied as one of the conditions necessary to success in rectal nutrition.

9. That the true explanation of the almost uniform efficiency of rectal alimentation and its physiology is to be found in the reversal of normal peristaltic action; first in the rectum sending the injected aliment above the sigmoid flexure, and then past the colon and ileo-cœcal valve into the small intestine. Here digestive fluids for their disintegration, solution, and chylifaction are abundant, and here also lacteals abound for chylous absorption. This retrostaltic action, when continuous, as in rectal almentation, accomplishes the ascent of the nutriment from the rectum into the small intestine. As here considered, I believe "intestinal inhaustion" to be a newly recognized function of the ailimentary canal. It is to the intestines what deglutition is to the stomach. Through its instrumentality rectal and buccal ingestion are as nearly as possible equalized in both their *rationale* and their results.

10. That the nutrition of the body by rectal aliments can be accounted for solely on the recognition of intestinal inhaustion. Without it the digestion and absorption of such solids or semi-solids as boiled eggs (Flint), meat broths and pulps, could not be explained.

11. That the present view in regard to the movement of the contents of the alimentary canal is probably incomplete, and that aliments, whether from buccal or rectal ingestion, while undergoing digestion and absorption, are not subjected solely to a downward movement, but to alternations of progression and retrogression, passing and repassing the absorbent surfaces of the intestine repeatedly till deprived of nutritive elements.

12. That the rectal ingestion of food is a valuable substitute for gastric ingestion in all cases of disability of the upper portions of the alimentary canal.

13. That in the early months of gestation reflected uterine irritation establishes a habit or abiding tendency to retro-staltic action in the muscular tunic of the entire alimentary canal, and that it is from this retro-staltic irritability that the nausea and vomiting of pregnancy originate.

14. That on account of this retro-staltic irritability, so manifest in early gestation, the intestinal inhaustion of rectal ingesta is greatly facilitated; and that this circumstance renders gravid nausea, above all others, the condition most favorable for efficient rectal alimentation.

15. That, under the careful and systematic application of rectal alimentation, artificial abortion for the relief of gravid nausea can be banished from practice, even as a last resort."

Notwithstanding the fact that many of these conclusions have no direct bearing upon the subject of my paper, I have given them in full, because they illustrate so forcibly the importance of the subject to different departments of medicine. Dr. Flint remarks, in the above mentioned paper, in speaking of rectal alimentation, "It is, perhaps, not an exaggeration to say that, at the present moment, it is one of the most important of the subjects pertaining to practical medicine, which claim attention and further investigation."

Believing this statement to be true, I have continued my investigations of the subject, though in a very limited way, because of lack of time and convenience. On July 11, 1882, I performed Experiment No. 5. Injected 4 oz. colored milk into the rectum of a cat which had fasted for twenty hours. The cat was meanwhile confined in a sack. After twenty minutes she was killed. None of the fluid had passed the ileo-cæcal valve. The colon was moderately distended and the fluid was easily forced into the ileum by pressure.

Aug. 3, 1882. Experiment No. 6. Injected ½ pint of colored milk into the rectum of a dog that had fasted for five days. Twenty minutes later ¼ pint more of the same material was injected and the animal was then chloroformed. About as much as was injected at the last time was now expelled, but none had been expelled before. Upon opening the abdomen it was found that none of the milk had passed the ileo-cæcal valve. The colon was only partially full. Pressure upon the colon readily forced the milk through the valve.

Aug. 6, 1882. Experiment No. 7. A kitten, only a few weeks old, was kept for twelve hours without food, and one dram of colored milk was then injected into the rectum. An anæsthetic was administered three hours later, and the abdomen was opened, but no evidence of the milk was found above the valve. The colon was filled with fæces, the small intestine wholly empty. With the large intestine intact, I inserted a tube into the rectum and injected water. As soon as the colon was considerably distended, the water began to pass the valve, and by continuing the injection a considerable quantity of well-formed fæces was forced backward through the valve. After passage of the first ball there was very little resistance to the passage of the rest of the fæces. The heart was still beating at the conclusion of the experiment. An examination showed that the normal condition of the valve was still maintained.

While these later experiments did not confirm the theory of "intestinal inhaustion," they fully demonstrated the facility with which fluids and even solids may be forced through the valve, at least in the dog and cat. It is generally thought, even by those who admit its occurrence in man, that antiperistalsis does not occur in the lower animals, but Prof. Preyer stated recently that he had seen antiperistaltic action in the small intestines of animals, and pointed out that the filling and emptying of the long cæcum of some animals could not be accomplished by any other means, as reported in the *British Medical Journal* for May 27, 1882. But at least it is to be inferred that the valve is quite as resisting in the lower animals as in man.

In at least two of the later experiments there seems to me a sufficient reason why retrostalsis did not occur. The first cat was brought a distance in a sack and was retained in the sack, because, seeming much frightened, we feared she might escape us. Now, since fright is known to seriously interfere with *gastric* digestion, we ought to have been prepared for a negative result. The kitten could not be kept fasting longer that twelve hours, and the fact of the colon being filled with fæces was a sufficient reason why the milk was not "inhausted." In the case of the dog, I could see no reason why the result should not have been similar to that previously obtained, except that it was a female and had become extremely restless and desirous to escape. Yet if the conditions were apparently the most favorable for a confirmatory result, I should not consider a negative result as contradictory evidence, because the natural functions are often suspended for reasons which are not apparent.

The results which I have thus far obtained give me confidence that thorough investigation will prove the following points:

1. That Dr. Campbell's theory of "intestinal inhaustion" gives the true rationale of rectal nutrition, at least in those cases where life has been sustained and flesh and strength acquired by rectal administration of undigested aliment.

2. That it is a demand for nutrition which induces retrostalsis and so conveys the food to those portions of the alimentary canal where they may be elaborated and absorbed. We have an analogy in the retrostalsis, which so frequently occurs in the stomach and œsophagus, to expel food when the system is surfeited or cannot appropriate it for other reasons.

3. That the resistance of the ileo-cæcal valve is not wholly mechanical, as has universally been taught, but its contraction and relaxation are controlled by circumstances and the needs of the system, and has an analogue in the pyloric valve, the analogy being somewhat modified by difference in anatomical structure.

The subject demands thorough and careful investigation, and the hope of attracting to it the attention of some one who has time and opportunity to prosecute it is my apology for presenting this paper so prematurely.

Occupation for Women.

BY DR. ANNA STEWART.

[Read before the Calhoun County Medical Society.]

SAYING nothing of what woman is best fitted to do, in view of that which she will be most likely to do, of that which her surroundings most demand of her, a few words may be said.

The larger proportion of women serve at some period of their lives as nurse as well as cook and housewife. In many households but one of these employments is no light duty, and when little preparation or none at all has been made to develop the physical frame to bear the burden, or to skill the hand to do, the work must be doubly hard and the results imperfect and unsatisfactory.

How few women are capable of making a patient comfortable without any instruction, and how very few with the most minute directions, the family doctor can testify to, no doubt. That fully as little is known as to what the patient should eat or the manner in which food should be prepared, is also evident to the physician who perhaps repeatedly has visited the kitchen to superintend the preparation of gruel or broth or the cooking of an egg for a delicate stomach.

It is evident that few mothers are particular to instruct their daughters even the little that they themselves know, and equally evident that most daughters seldom or never give a thought to the subject of nursing, much less that they are under any obligation to do so, and yet there is sickness in every family at some time, through accident or otherwise. Often, perhaps oftener than any one would dare to say, a precious life is lost through inefficient nursing. The doctor is heard to say "If I could only have a nurse that I could depend upon." Mothers may be willing that the knowledge of these things rest with the doctor, but the doctor is not willing for it to be so. True, many doctors have a good nurse at command and sometimes many of them. There are more who want a good nurse in every family. Many noble women make nursing their life-work; many more are learning the profession. The doors of our hospitals are wide open to those who are in earnest and there is always room for careful, thoughtful workers among the poor.

A good nurse must understand cooking for the sick. For this knowledge opportunity is afforded at the establishments in some of our large cities called "tea kitchens." Outside of these advantages is the doctor who is ever ready to impart instruction to the willing worker.

Whoever has a common school education has access to the best hygienic literature of the day and can be capable with a few hours reading to keep her patient's room in a sanitary condition.

Mothers with the interest of their own families and of humanity at heart, should not remain passive on this subject. Teachers who give careful study to the future of the girls under their charge can hardly fail to instruct them in the matter of sanitary science.

To be a good housewife includes the knowledge of good cookery. To be a scientific cook necessitates the study of healthful cookery in connection with what foods are most easily assimilated in the body and are the least harmful. How many such cooks in our land, let a nation of dyspeptics proclaim.

A good housewife also includes a wise mother, who will start her sons and daughters on the road to health, giving a stock of such knowledge as will develop them as men and women of strength—not only to gain their daily bread, but to grapple and overthrow temptations of the day, which at times come upon the youth so unawares that only a giant in morals could resist were he not forewarned.

The prime requisite for a good cook, nurse, housewife or mother, and especially for all of these combined, is a good constitution. Women thus endowed are in the minority. In many thus blessed the foundations of disease are laid long before puberty through improper dress or indiscreet diet—perhaps even in infancy—or through sedentary habits, dissipation, careless exposure, and the like, after that period. Those who have not a good physical frame should acquire all the strength and symmetry possible through physical culture; while through the same means those more fortunate must preserve theirs.

Children are too much in seclusion. There is no reason why, as a rule, their sports should not be in the open air; even upon rainy days they can play under a canopy with the air free tó enter at all sides, while in cold weather they may be clothed so as to enjoy out-of-door exercise even when the thermometer is below zero. When thorough ventilation is so widely understood among the boards of health there is no excuse for children studying or playing in illy-ventilated rooms.

Before the age of twelve, thirteen, fourteen and fifteen, girls feel free to romp and play almost as much as boys; after that age they are at a loss to know what to do to preserve their dignity and at the same time to enjoy themselves.

Among the children of the industrious poor and the well-to-do there is no lack of healthy employment, the only danger being in too steady work and not enough recreation for the tired muscles.

The daughters of the rich have aids in the various schools for muscular training as the riding schools and the gymnasiums. But these are unsatisfactory because they are not constant. To keep up muscular health the exercise should be taken daily. Better to put less time on the embroidery and more to the duties of charity; less time on the light reading and more to the observance of nature.

The duty of directing girls and young women in the ways of usefulness and physical culture rests largely with the mothers and teachers. Who but physicians can be depended upon to inspire mothers and teachers with a proper sense of their duty?

The Michigan Plan for General Boards of Health.

[Abstract of Paper read before the National Social Science Association, September 6, by Dr. H. B. Baker, Secretary Michigan State Board of Health.]

SO far as known to the author of this paper, the Michigan State Board of Health was the first purposely established on its plan,—which plan may be briefly outlined as follows: It provides for the collection and dissemination of information, and the general advisory supervision of all health interests of the people within the State, but does not give the board power to enforce any orders other than those connected with its functions just stated. The theory of the law in Michigan is that the local boards of health should have the power and should do the work of combatting local nuisances and all other local causes of sickness, including the restriction of contagious diseases. The State Board was established to serve as a generalizing center, to spy out and give warning of the approach of an epidemic disease, secure prompt report of every item of information which can be made available for the good of all, study the best methods of preventing and restricting diseases, and communicate such information to the several local officers who are directly employed in combatting the spread of disease. In such cases the local health authority needs to know just what it can do, and a State board of health, organized on the Michigan plan, has collected information of the best methods of procedure which can immediately be given to the local board, thus enabling it to do in its emergency what otherwise would be impossible. In order most successfully to avoid or prevent diseases, we need to know their causes. For any knowledge in regard to the causes of diseases, facts and statistics of great numbers of cases of sickness from these diseases,and of the conditions which were coincident with such sickness, are essential; these facts and statistics cannot be collected by local boards, in sufficient numbers nor over sufficiently wide areas to throw out the influence of local circumstances; so that for any such progress in knowledge it is important that there should be a general board to collect and collate the fragmentary material which the local boards can supply. For such work, also, time is required, and a more continuous length of service than is usual for local boards of health to give, because of political and other changes. State boards of health now quite uniformly enter upon such work; but more than this is needed. At the time, and long previous to the time, the National Board of Health of the United States was organized, the author of this paper pleaded, and here continues to plead, for the maintenance of that general board of health which shall do for the United States what a State board, on the Michigan plan, aims to do for a State; a commission or board which shall systematize and utilize the vital statistics in the United States census, and all the information now collected by all the government departments, and which should otherwise collect and disseminate information essential to the best public health work in this country. If the United States will maintain such a generalizing center of public health work in this country we shall soon see the grandest progress that the world has ever witnessed; for it will set in operation a movement which cannot fail to yield knowledge of the conditions under which each and every disease proves destructive of human life and happiness. But in this most important work which a government can undertake for a people it is essential, in order to secure the best results, that the central, generalizing body, shall have the confidence and co-operation of the great body of sanitarians throughout the whole country and of a large proportion of the local and State boards of health whose work is by it to be consolidated for the public good. Such has been and is the case as regards the National Board of Health, but the government has recently taken a much-regretted step backward by abolishing one of its means of prompt dissemination of information, namely, the weekly bulletin, and by crippling one of its sources of information, that by inspection systems, which had just begun to yield information valuable for incorporation with that from other sources. Members of Congress seem unable to appreciate the fact that movements for the prevention of disease are of vastly greater importance than are those measures designed simply to palliate the results of the neglect of such prevention; for we learn from the Congressional Record that recently large sums of public money were freely voted to build hospitals for a small, special class of persons, while these same congressmen failed to vote to freely sustain the National Board of Health in its work, which is for the good of every citizen of the country, and even for humanity throughout the world. Palatial Marine-hospitals in each large sea-port, for the special benefit of a few sailors sick with syphilis and other preventable diseases, may be proper objects for Congress to expend the people's money for; but sooner or later stinging criticisms will attach to such actions by our representatives; especially if, as was recently the case, they neglect to provide the means for the most successful work by those charged with the highest duties which can be undertaken,—inquiries into the causes and best means of preventing all diseases which are yet permitted to interfere with the "Life and the pursuit of happiness" by those who maintain this government for the people. Comparatively little has yet been done in this country toward the systematic work which this paper has suggested, for the reason that individual effort cannot accomplish it, and those we elect to govern us have not all informed themselves upon the subject. Sanitary science is one of the latest sciences. It utilizes sciences which also are new. Already, in reference to several of the most important diseases, it enables us to predict their proportional increase or decrease as far in advance of their occurrence as the meteorologist can foretell the weather. But in such studies it is needful to include facts relative to wide areas; in fact, what the United States signal service gains for meteorological progress by being able to generalize its work throughout the country may easily be paralleled in sanitary science by a similar broadening of the field of view, from the local and State, to that of a properly sustained national board of health. Whenever that is done the signal service itself will have its usefulness greatly enhanced, because its work will be made available for use in saving human life in ways not now imagined by the people, yet which those actively engaged in public-health work know are not only possible but practicable. May the day soon come when we are permitted to see such beneficent results.

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In England during 1879, 308 deaths out of a total of 271,496, were ascribed to eczema.

Case of Exophthalmic Goitre—Important Complications—Complete History.

BY A. W. ALVORD.

[Read before the Calhoun County Medical Society.]

I WAS called to attend Mrs. T., Jan. 14, 1881, and found her suffering from exophthalmic goitre, with all its attendant nervous disorders. She was 45 years of age, had always lived on a farm, of slight habit, and had for years suffered from uterine difficulties. About six months previous she had been taken with violent pains in the posterior portions of the brain, and had sent for a young physician living near, who regarded her case as neuralgia, and treated with quinine and opium mainly for two or three weeks. At the end of this time, finding herself no better, she discharged her medical attendant. Her pain gradually moderated without medical aid, but never left her for many months. When I first saw her the exophthalmos was marked, the post-cranial pain constant, no appetite, bowels constipated, anæmic in extreme, sat up but little, and complained much of palpitation of the heart, with dyspnœa. A careful examination of the heart showed mitral stenosis, with loud murmurs about the aortic orifice, which I did not believe to indicate organic derangement. The goitre was small and very vascular. I then directed my inquiries to the state of the uterus, and learned that she occasionally had severe floodings. She granted my request for a vaginal examination, and I found, on introducing my finger, a tumor presenting. It was soft, yielding easily to pressure, of large size, and extending, on the left side, high up and taking in the left ovary. On withdrawing my finger it was covered with blood. I then introduced a bi-valve speculum (Hodge's improved) and saw an encephaloid cancer of the womb. The bleeding was considerable, but yielded easily to the use of styptics. I told the patient I could do nothing to save her, but in answer to her anxious inquiry if I could do anything to prolong her life, I told her I probably could, and in accordance with her desire attended her throughout the course of the disease, and assisted her to prolong her life until April 19, 1882, more than fifteen months after my first visit. During this time she had eight exhaustive floodings. At such times the hemorrhage was so profuse that her clothing and bedding would be saturated before the tampon with styptics could be used. Pain passed away under treatment, and we managed to sustain her moderately well. Treatment consisted chiefly of digitalis, cannabis Indica, hyosciamus and conium, together with iron in some form. At first I used the phosphate of iron, but after the floodings became troublesome, had recourse to the muriatic tinct. of iron. A few weeks before her death, pneumonia supervened, and giving her opium one night to promote rest, she insisted on its constant use, and for the last few weeks opium took the place of other anodynes. The exophthalmos disappeared before death, but she never regained anything like the natural expression. Dyspnœa increased with the coming on of general dropsy. Her mind remained clear to the last. At the autopsy all the serous cavities were found full of fluid, the cancer grown to embrace both ovaries and the uterus, with enlarged mesenterics freely distributed throughout the abdomen. But the chief point of interest in this case centers about the heart. The right auricle was filled with a firm clot, extending through the tricuspid opening. It was partially dilated, with very thin walls. The tricuspid valve was no longer of use, as it was glued back to the sides of the ventricle, while around its edges was a fringe from ¼ to ⅞ inches in length, consisting of firm white strings attached to the free edge of the valve, entirely around its circumference and less than ¼ in. apart. These strings were two or three times as large as an ordinary wrapping cord and quite firm. Within the right ventricle at the outer side and partly imbedded within its walls, in a deep sulcus behind the tricuspid valve, there was a cyst about the size of a black walnut, containing a firm white caseous material, which was quite brittle and of snowy whiteness, having a grain along which it would most easily divide. Placed under the microscope it resembled fibrin and broken down cells, with fatty globules. Now, what have we here? Zeimssen makes mention of fibrinous clots squeezed into the form of a cyst and covered with a sac. Possibly this may be the true explanation of the cyst, but if so, what about the fringe? Is this, too, a fibrinous deposit? Have shreds of fibrin accumulated on the free edge of the valve, and, clinging to it, grown by accretion, until this fringe is the product—like drops of water in forming an icicle? I find no record of such a phenomenon.

I am under obligations to Dr. Geo. Howell, of Macon, and Dr. J. W. Burchard, of Clinton, for valuable assistance at the autopsy.

Laboratory Notes—Iodia and Bromidia.

BY A. B. LYONS, M. D., ANALYTICAL CHEMIST, DETROIT, MICH.

"Iodia is the ideal alterative. * * It has an established reputation as being the best alterative ever introduced to the profession." Here should follow a list of eminent physicians—professors, all, in reputable medical colleges, who, "having tested iodia, recommend it to the profession," but it is best that in this connection the names should be omitted. The statements just quoted, I shall not attempt to controvert. Science does not as yet furnish the data whereby they may be established or refuted. I confine myself to a scientific examination of other statements, which are easily verified, if true, and which are made with the same positiveness as those already cited; if these prove trustworthy, we shall be willing to accept the others—*cum grano salis.*

"Iodia is a combination of active principles obtained from the green roots of stillingia, helonias, saxifrage, menispermum, and aromatics."

Pharmacy has lost much in that the active principles separated from these various drugs remain unknown, for the most part, except in this combination. However, if there are present here certain definite active principles, it is possible for the chemist to separate them from the respective drugs. It is true that organic analysis presents many difficulties, but none that are insuperable when the end to be attained is of sufficient importance.

It is not wise, however, to waste labor; in the present instance we are content to accept the statement of the manufacturers or discoverers, and await the time, surely not far distant, when the new active principles shall become articles of the materia medica, with no restriction of copyright or trade-mark.

But we are further told: "Each fluid drachm of iodia also contains five grains iod. potas., and three grains phos. iron." Now, we are on familiar ground. Iod. potas. can be nothing else than potassium iodide, and it is not a difficult matter to estimate the quantity of that substance if it is present as an ingredient of iodia. One fluid ounce of the preparation, when evaporated at a water bath heat, leaves a residue weighing 41.6 grains. If 1.6 grains of this consists of "active principles," and we grant that the "phos. iron" has been volatilized during the evaporation, it is possible that we shall find in this residue the 40 grains of potassium iodide for which we are seeking. On igniting the residue, however, at the lowest practicable temperature, it weight was reduced to 23 grains. This last residue was found to consist almost wholly of potassium iodide, and quantitative tests made without previous ignition showed that the amount of this compound present is about 23¼ grains in a fluid ounce, or a little less than three grains in a fluid drachm.

The phos. iron I supposed at first to be phosphate of iron, but that hypothesis is untenable since the compound must be a volatile one, if it is present at all, and it cannot be a compound of iron, for neither the solution nor the ash after ignition contained more than mere traces of that metal. It is plain that the abbreviation was intended to be read phosphate of iron, and so, if it means anything else, is evidence, *prima facie*, of fraud: if it does mean phosphate of iron, then either there was some carelessness about preparing the particular sample examined, or the manufacturers deliberately use one formula and publish another—for reasons best known to themselves.

Bromidia.—"Complaints have been made to us by physicians that some dishonest druggists substitute an inferior preparation made by themselves when bromidia is prescribed. Physicians are cautioned to look out for these substitutions, because the lives of their patients may be endangered, and their own reputation injured as well as ours."

A formula which purports to be that of bromidia accompanies the above caution, and it is one which no apothecary should have any difficulty in compounding. "Every fluid drachm contains 15 grains each of pure brom. potas. and purified chloral, (hydrat?) and ⅛ grain each of gen. imp. ext., cannabis ind. and hyoscyam." The formula calls for chlroal, but means, of course, chloral hydrate; what is meant by "gen. imp." one can only conjecture, but there is only one extract of cannabis indica, and ⅛ grain of an extract of hyoscyamus will not make any very great difference in the effect of the compound. Of course a formula is good for nothing if it is couched in such language as to be unintelligible; we assume that the language has some meaning, and that the most natural meaning of the words used.

Now, why should a mixture prepared according to this published formula by any skilled pharmacist, however "dishonest," endanger the lives of patients to whom it may be administered, when the prescribing physician writes "Bromidia," instead of:

"℞ Potas. bromide..................
Chloral hydrate...............āā ʒ ij
Ext. hyoscyamus...............
Ext. cannabis ind..... ......āā gr. j
Syr. simp., q. s., ad............ f℥ j
Ess. anise, q. s. to flavor.

Misce secundum artem."

One reason suggests itself, and only one, but it must be whispered softly: Perhaps the published formula is not actually followed by the manufacturers of bromidia.

Among the constituents mentioned in the formula is an extract that generally betrays its presence very quickly when it is introduced into an aqueous mixture. The resinous portion of the cannabis indica is sure to separate and floating on the surface of the mixture to form an unsightly deposit upon the sides of the bottle. And precisely this happened when I attempted to prepare bromidia in accordance with the published formula. But the bromidia which costs one dollar a bottle does not show any such deposit—a matter of no great consequence, since physicians prescribe the article not for its cannabis indica, but as a combination of potassium bromide with chloral hydrate. Does the authentic bromidia then contain of the principal ingredients the quantity stated in the formula? The results of an analysis showed that it does not. One fluid ounce yielded 82 grains of potassium bromide and about 90 grains of chloral hydrate, instead of 120 grains of each of these drugs.

Proceedings of Societies.

Third Quarterly Meeting of the Calhoun County Medical Association for 1882.

The third quarterly meeting of the Calhoun County Medical Association for the year 1882 assembled at the Albion House, in Albion, on Tuesday, September 5, 1882. The members present were Drs. Crosby, Van Ostrand, Haight, Blanchard, Greene, Case, Stewart, Lindsay and Sprague. Dr. Alvord, recently settled in Battle Creek, being present, was elected to membership. There were also present Drs. Lewis and Cook, of Jackson, and Dr. Carty, of Burlington, and they were invited to participate in the discussions.

The meeting was called to order by the president, Dr. Geo. H. Greene, of Homer.

The minutes of the preceding meeting were called for, read, and approved.

After the preliminary business, Dr. Anna Stewart, of Battle Creek, read a paper on "Occupation for Women." She confined herself particularly to the need for women who are educated physically and mentally to care for the sick, to cook hygienically, and to use preventive measures against disease in all its forms. She thinks that here is a wide field which all women ought to cultivate to some degree. She received a vote of thanks of the society, and a request that a copy may become the property of the association. Dr. Green called to mind a case in his practice where a lack of knowledge of how to care for the sick (on the part of the nurse), such as every lady ought to obtain, cost a patient's life. He thinks that all women should be educated in the laws of health, and especially in the effect of sunlight upon the health. He attributes a large part of the sickness among American women to the studious care with which they avoid the sunlight, particularly young, growing girls. On this account their growth and constitution is much like that of a potato-vine growing in a dark cellar. Dr. Crosby expressed similar opinions. Dr. Cook thinks that it is very necessary that women should be educated in the care of the sick. Dr. Alvord thinks that the subjects discussed in the paper are important, but that a question of more importance to us is the duty of the physician concerning the nursing of the sick. He would be glad to hear discussed the physician's responsibility in this matter. Thinks that while women seem best adapted to nursing, men often become very proficient nurses. Dr. Lewis thinks that much responsibility devolves upon the physician in this respect. That he ought always to select some member of the family or other person and instruct them thoroughly in their duties. He remembers that Dr. Kedzie, of Lansing, in the address to his class at the time of graduation, said that the duty of the physician is, not only to treat, but to prevent disease. That he might in this way greatly lessen the mortality rate. Dr. Green recalls a case in which he was obliged to neglect a desirable part of the treatment because there was no one in the family whom he felt that he could trust to carry it out, until on the third day a bright, active sister-in-law to the patient arrived, whom he had no difficulty in instructing, and he obtained excellent results. In another case he was left dependent upon a very stupid woman to nurse a patient, her relative. In this case he so wrought upon the nurse's mind by a graphic portrayal of the probable course of the disease and the sad result of negligence on her part that he roused her from her lethargy and made of her a very excellent nurse. Thus he illustrates the advantage to the physician of knowledge and tact in the management of nursing.

A paper promised by Dr. Cox was next on the programme, but he has been lying very sick for several weeks past. Dr. Green inquired if any one could report his present condition, whereupon Dr. Alvord, who is assisting in his treatment, made a statement of his case, addng that while he considered him in a critical condition he had yet hopes of at least a partial recovery. Dr. Crosby moved that the secretary be instructed to convey to Dr. Cox the sympathy of the various members of the association in his affliction, and their strong hope for his recovery and that their future meetings may be blessed by his presence. The motion was supported, and prevailed unanimously. Dr. Cox is the oldest and the leading member of the society, ex-president of the State Medical Association, etc.

Dr. French was next on the programme, but had been unable to leave Dr. Cox (his brother-in-law) and had requested Dr. Alvord to fill his time. Dr. Alvord read a very interesting report of a case of exophthalmic goitre complicated with uterine cancer which had proved fatal. The chief point of interest was the condition that the heart presented at the autopsy. He presented the heart for examination. The free edges of the mitral valve were fringed by a vegetative or fibrinous growth and within a sort of pocket in the wall of the left ventricle was a cheesy-looking mass which he states was of the size of a walnut at the time of the autopsy. Numerous microscopical examinations have found only a granular debris with a few fat globules and broken-down fibrous tissue in its substance. He can only account for the cheesy mass by the theory that at some time a clot was crowded back behind the valve and that it has degenerated into this tissue. He has been unable to find any description of a similar fringe-like growth on the free margin of the valves, and found no one at the American Association who could give him any light on the subject. The thanks of the society and a request for a copy of his paper were tendered Dr. Alvord.

Dr. Blanchard recalled two or three hearts sent to the University for examination in which he thought there was a similar condition, but Dr. Alvord says Prof. Stowell and several others at Ann Arbor had informed him that they had never seen such a case.

Dr. Green asked whether a clot could have occurred in a normal condition of the blood. Dr. Alvord thought not.

Dr. Van Ostrand's paper was not completed.

Dr. Sprague read a paper on the action of the ileo-cœcal valve, setting forth its relations to that very important subject, rectal alimentation. By certain experiments and observations, he has arrived at the conclusion that the action of the valve is not simply mechanical, as is universally taught, but that when the system demands it, it readily allows an upward passage of aliment for the purpose of digestion in the small intestine. Also that the theory of stercoraceous vomiting being impossible because of the constitution of the valve, has no foundation in fact. Dr. Sprague received the thanks of the society and a request for a copy of his paper.

After a short recess for supper, Dr. Green reported two cases of what he was very certain was vomiting of matter from the colon. Dr. Alvord expresses surprise that so strong an array of quotations could be adduced expressing unbelief in the possibility of such an event. He was sure he had seen several instances. He recalled a case of invagination of the ileum where he had passed a tube beyond the sigmoid flexure and injected water until suddenly the tumor subsided and the invagination was cured. In this case he had added tobacco to the water, for its relaxing effect. Dr. Green referred to a case he had seen reported in which invagination had been relieved by injection of bicarbonate of soda, followed by tartaric acid. The question of safety of such a process was raised. It was deemed less safe than the injection of water, the force and rapidity of action of which can be better controlled than that of the evolution of carbonic acid gas.

The question of the quantity of water that could be injected *per anum* being raised, Dr. Sprague said that at the sanitarium it was not uncommon to inject a gallon. Dr. Alvord has frequently used a gallon, and in two cases he used a patent pailful for each patient. These facts were considered positive proof that the water passes the valve.

Dr. Van Ostrand recollects a case that occurred to him over twenty-five years ago, in which the patient, apparently suffering from invagination, was vomiting persistently, and was likely to die before her husband could return, who was a day or two from home. It occurred to him that he might possibly sustain the patient for a short time by rectal injections of nutriment, though he had never known of it being done. He accordingly began to inject chicken broth, and the vomiting soon ceased, the patient began to improve, and in a short time she recovered. His only explanation was that the peristaltic action being changed, the invagination was thus relieved. In another case of excessive gastric irritability he had stopped the vomiting and relieved the patient by the same method.

Dr. Alvord referred to a theory that peristaltic action was caused by the influence of the pneumogastric and sympathetic nerves, and the irritation transmitted from fibre to fibre, downward and onward. Thinks that theory would be very applicable to the theory of "intestinal inhaustion" by supposing that the irritation could be transmitted backward as well as forward.

The hour being late, the discussion of the regular topic was postponed until next meeting.

It was resolved to hold the next meeting at Battle Creek, and in consideration of the facts that it will be the annual meeting and that the society will probably be honored by attendance from abroad, it was decided to assemble at 10 o'clock A. M., and to dine at the Sanitarium by invitation.

Drs. Lewis and Cook were elected to honorary membership.

Adjourned to the first Tuesday in December.

W. B. SPRAGUE, Sec'y.
GEO. H. GREEN, Pres't.

Health in Michigan.

For the week ending Aug. 12, 1882, the reports indicate that bronchitis considerably increased, that consumption, neuralgia, tonsilitis, dysentery, and intermittent fever increased in area of prevalence. There was no marked decrease in any disease reported. Yet, compared with reports in preceding years, the sickness from intermittent fever, diarrhœa, dysentery, and typhoid fever, seems to be much less now than is usual at this time of year.

At the State Capitol, during the week ending August 12, the prevailing winds were west and southwest; and, compared with the preceding week, the average temperature was considerably lower, the average absolute and relative humidity less, and the average day ozone more.

Including reports by regular observers and others, diphtheria was reported present during the week ending August 12, and since, at 17 places, scarlet fever at 11 places, measles at 6 places, and small-pox at 14 places, as follows: In Walker township, Kent Co., Aug. 7; in Ionia township, Ionia Co., near Carson City, in Westwood, Kalkaska Co., and at Custer, Antrim Co., Aug. 10; at Detroit, Flint (2 new cases), Marquette (1 case), Aug. 12; at Grand Rapids (4 cases), and Portland (1 new case), Aug. 14; in Montrose township, Genesee Co., Aug. 15; in Danby township, Orange, and Sebewa, Ionia Co., Aug. 16.

The sanitary inspector reports for the week ending Aug. 12, one case of whooping-cough among immigrants arriving at Port Huron.

For the week ending Aug. 19, 1882, the reports indicate that dysentery and typhoid fever increased, and that bronchitis and influenza decreased in area of prevalence.

At the State Capitol, during the week ending Aug. 19, the prevailing winds were southwest, and, compared with the preceding week, the average temperature was slightly higher, the average absolute humidity and the average day ozone were slightly more, and the average relative humidity was slightly less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Aug. 19, and since, at 14 places; scarlet fever at 9 places; measles at 4 places; and small-pox at 8 places, as follows: At Montrose, Genesee Co., Aug. 15; in Danby township, Ionia Co., Aug. 16; at Grand Rapids (1 new case), Aug. 19; at Marquette (1 case, convalescent), Aug. 20; at Portland (1 new case), Aug. 21; in Walker township, Kent Co., and Orange and Sebewa, Ionia Co., Aug. 21.

For the week ending Aug. 19, the sanitary inspector reports one case of measles among immigrants arriving at Detroit.

For the week ending Aug. 26, 1882, the reports indicate that diarrhœa, remittent fever, influenza and inflammation of bowels considerably increased, that neuralgia, typhoid fever and cholera infantum increased, and erysipelas decreased in area of prevalence.

At the State Capitol, during the week ending Aug. 26, the prevailing winds were southwest; and, compared with the preceeding week, the average temperature was considerably higher, the average absolute humidity was more, the relative humidity slightly less, and the day and night ozone the same.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Aug. 26, and since, at 15 places, scarlet fever at 8 places, measles at 8 places, and small-pox at 5 places, as follows: At Westwood, Kalkaska Co. (3 new cases), Aug. 21; in Walker township, Kent Co., and Orange township, Ionia Co., Aug. 21; at Grand Rapids (one case convalescent), Aug. 28; and Sebewa township, Ionia Co. (10 cases), Aug. 29.

For the week ending Aug. 26, the sanitary inspector reports two cases of whooping-cough among the immigrants arriving at Port Huron.

For the week ending September 2, 1882, the reports indicate that rheumatism, typho-malarial fever, tonsilitis and bronchitis increased, that dysentery considerably decreased, and that inflammation of the bowels and cholera infantum decreased in area of prevalence.

At the State Capitol, during the week ending September 2, the prevailing winds were northeast; and, compared with the preceding week, the average temperature was lower, the average absolute humidity and average day ozone were slightly less, and the average relative humidity and average night ozone were slightly more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending September 2 and since, at 11 places, scarlet fever at 6 places, measles at 3 places and small-pox at 2 places, as follows: at Grand Rapids (one case convalescent) August 28; in Sebewa township, Ionia County (convalescents), August 30.

August 27, a case of cholera resembling Asiatic cholera, was reported to have occurred in Adams township, Hillsdale county. No other case has been reported.

For the week ending September 9, 1882, the reports indicate that dysentery and typho-malarial fever considerably increased, that erysipelas and influenza increased, and that diarrhœa and tonsilitis decreased in area of prevalence.

At the State Capitol, during the week ending September 9, the prevailing winds were southwest, and, compared with the preceding week, the average temperature was lower, the average absolute and the relative humidity, and the average day and night ozone were less.

Including reports by regular observers and

by others, diphtheria was reported present during the week ending September 9 and since, at 17 places, scarlet fever at 11 places, measles at 4 places and small-pox at 3 places, as follows: in Berlin township, Ionia county, September 8; at Grand Rapids (last case discharged September 12); at Ionia, September 18.

For the week ending September 9, the sanitary inspector reports 3 cases of whooping cough among immigrants arriving at Detroit.

HENRY B. BAKER,
Secretary.

Lansing, Sept. 14, 1882.

◆

Detroit Academy of Medicine.

March 7, 1882.

A paper was read by Dr. Petershausen on "Some Views of Abortion," published in the DETROIT LANCET for April, 1882.

Dr. Andrews: In regard to the frequency or necessity of abortion, and the efficacy of drugs, there are a good many interesting points. I would like to know how often it is perfectly legitimate to have occasion to do that work. In my own experience thus far I have never seen a case where there seemed to be sufficient necessity to justify me in resorting to it. In two or three instances I have known of them; in several instances cases have occurred where it seemed that it would be necessary; in one or two of these in particular the same thing occurred twice, and I was called in, in consultation, as to the question whether abortion was necessary, both instances with the same woman, each time with a different physician. One was the first pregnancy. She was gone about twelve weeks or probably a little later. The woman became very much emaciated from a strong, hearty woman to a living skeleton. The doctors resorted to all means in vain. We both agreed that probably it would be necessary to produce abortion. We concluded to wait twenty-four hours more. From that day the symptoms began to fade away. It the course of a week took nourishment freely. She recovered flesh and gained more every day. The case seemed to be a desperate one at that time; we both were apprehensive that nothing else would do, but thought we would wait the twenty-four hours.

Two years ago I was called in consultation with another physician to see the same patient. On being called in the other time, and she getting better, she wished to have me called to see her again. She was in the same condition, but not so bad as before, but went on to successful termination without any further trouble.

In regard to drugs, I have no faith in the efficacy of drugs. What the doctor has said corresponds with my experience. How often women come to our office and insist upon something to cause abortion. I candidly tell them, I do not know any drug, expect those which, if used, have a powerful effect to injure the patient's life, and that the abortion would probably cause death. They generally laugh at me. As a rule, those who have tried and had miscarriages will insist that they can do it if they choose. I generally find when they make use of a drug they resort to some violent measure, as excessive exertion, jumping, dancing, or tumbling down stairs, some of them without any effect at all. So far as I know, while many drugs have the reputation of producing this effect, as far as my knowledge goes, I have never known an instance where they have done so.

A lady in the city took ergot without any effect, except an uncomfortable sensation in the stomach. Some parties told her the child would be marked. She got frightened and came to me. She had two or three miscarriages, which almost killed her.

Dr. Cleland: My experience is very similar to Dr. Andrews'. I think I can call to mind five or six instances in which it was necessary to produce abortion—bring on premature labor. One case presents itself particularly to my mind. A number of years ago, when Dr. Inglis was alive, I was called in to see a case about six months advanced in pregnancy; a general disease—disease of the kidneys. This was her second experience, having had one some four or five years before. The case seemed to be one in which it was absolutely necessary, and by my advice it was brought on. The woman recovered from the effects in about a week or two, but sank with the disease which the miscarriage was induced to relieve; she had diseased kidney. I suppose it was dropsy, arising from pressure.

The second case was the same woman, who had two successive cases of pregnancy; both resulted in the death of the child. When she came to full term the child had to be destroyed; miscarriage brought on in the seventh month. She bore a live child, which is still living. That was the most successful case of my experience.

About two years ago last January I was called to attend a case. Dr. Spalding knew the case, for the woman had a fearful experience with the first child; the head had to be broken up before it could be delivered. She became pregnant again and was advised by her attending physician, in view of the previous suffering, to submit to abortion. An effort was made in that direction to relieve the woman, but failed. On going on to full term, I was called in to wait upon her and was just twenty minutes in the house. What the original trouble was I am unable to say.

I applied the forceps in the second case, broke up the head and delivered it. On this occasion there was only twenty minutes' labor.

I nearly forgot the history of the others. About six times I have brought on labor prematurely. As regards the use of drugs, I think with the other gentlemen. I do not think labor can be brought on by the use of drugs without using violence to the system. I never knew success attend such efforts.

A very common way among women is the hot water douche. They will buy a large fountain syringe and sometimes use it for hours at a time, and ultimately bring on expulsive pains.

I think as far as my observation goes with women in that way, it is the most innocent way and least likely to induce trouble. In the use of certain instruments they will try all kinds of methods.

One thing strikes me in consideration of the whole subject—the extreme frequency of the crime. Scarcely a day passes but I have a patient come to my office for the purpose of having abortion performed, and women who ought to know better, who pretend to know the full consequence of the request they make. As far as my observation leads me to form an opinion, I should say it is a crime that is every day increased, and that fœtal life is less and less important as we become more and more civilized. As to the fatality of abortion, it does not seem to me that anyone can form any estimate. Cases of death result from this cause which are only exhibited to the attending physican and a few of the friends of the patient. I have been called again and again to see women die, where they would not tell, but where the evidences in the case pointed in that direction. So the estimate of sixty-five per cent. seems to me a very low estimate indeed; of course I do not know.

These were cases which had run into six months—really premature labor.

Dr. Noyes: Looking over my professional life, which runs back nearly thirty-five years, I am able to bring to mind but very few cases and these not my own, where I knew that premature labor was resorted to in consequence of vomiting to save the life of the mother, and these occurred in Cincinnati, where I was practicing with my preceptor, who had, I think, one or two cases. I have seen many cases of most severe vomiting; some women would become exceedingly sick and debilitated, but finally came out all right, and so in cases where it was thought best to bring about deliverance by interference, but was not attempted, they also came out all right.

I have been called a great many times to see persons who had taken drugs for the purpose of producing abortion, and never knew it to work successfully. In every case the woman either poisoned herself or became dangerously sick, and I was sent for. One case I now recall: A woman who had taken tansy tea denied it, but I gave her an emetic and up it came, and I then knew what was the matter. I charged her then with it and she admitted it. I have seen this tansy tea used principally in the country, never in the city; but there is not the least doubt in my mind that these drugs which have been mentioned are used for that purpose extensively by women.

This crime is on the increase fearfully; it is looked upon as a trifling thing to destroy a fœtus; women do not think they are committing any sin. If things go on this way it will not be necessary for them to go to a doctor; they will be able to do it themselves. When they know, for instance, that hot water will do it, it will be very easy for them to bring it about themselves. Now, what is the reason of all this? What the cause? What has brought it about? What has poisoned society and the married relation to such a degree? That is the question we are to consider. Why, do you know that there are women in this town who make it a business to call on young married women of their acquaintance and tell them "Now be sure and you don't have any babies;" instruct them how to avoid having children; they lecture them against having children, without calling names; "it would not do to give names."

I will mention a case that came under my observation. Within two years, a young man prospectively rich, married a young woman prospectively rich; they were married but a short time when he came into my office and said he was in distress. I asked him what was the matter. He says: "My wife has missed her turns, and she declares she will not eat or drink until they are brought about. She says she will die before allowing this thing to go on."

This is only one of hundreds of such cases. As I have said, I never produced criminal abortion in my life. I asked him how long she had passed her time. He said, "about two or three days." "Well," I told him, "just let her sit in a tub of hot water and give four compound cathartic pills." That is all I said. Whether she did use the hot water and pills or not, I do not know, but the turns came on all right. I mention this case as a striking illustration of cases that could be adduced if only known. As I said before, why is it that even the wealthy and the educated resort to this thing, who are able to bring up children in good health? There must be some cause for it. It seems to me preaching from the pulpit is sadly lacking in these days. These persons are members of churches; some of them are ladies in society; in the church work of churches; they hear nothing from the pulpit about the great evil; society is poisoned from top to bottom. I have known ministers apply for means of prevention of having children. Dr. Andrews mentions a reason, and a very plausible one, that the husband does not want children because it forbids greater indulgence in the sexual appetite, and I think the woman does not want to be laid up or kept out of society, and they say it spoils the figure. We all know these things exist. The medicines they use are the means that they employ themselves. What we want to look at particularly is, what is at the bottom of all this? The responsibility is all thrown on the doctors' shoulders. But society itself, I think, is to blame even more so than the doctor it would employ in this work of destruction.

Dr. Spalding: Mr. President—I suppose there is no doubt about the frequency of abortion, and I think most of us are called upon quite frequently to attend miscarriages brought about in the same way. I never consider it my duty to inquire how it is brought about, for if the woman brought it about she will misrepresent the case and the method of producing it.

Premature labor with safety, which undoubtedly is the exception, is regarded as a question of interest to most of us; if it must be done, how is it done most safely?

I cannot give much from my experience on this point. I have had two cases of premature labor; in both of those cases failed completely with drugs. We have all heard ladies' own statements of taking numberless drugs without any effect.

In the two cases in which I induced premature labor, I did it with a sponge tent with safety; a sponge tent introduced, followed by decided pains in about twelve to twenty-four hours afterwards; no harm followed; both cases of abortion were prior to the sixth month and both occurred several years ago. I suppose if the same cases came to me now I would wait longer. Both cases were induced on account of contracted pelvis, perhaps misjudgment on my part, not anticipating deliverance at seven months. I induced premature labor earlier than I should do it now. Both cases were in my first three years of practice. I take it my judgment of the diameters through which a child's head would pass was not so great as now; possibly one or both of them might have been saved; however, it was an error of judgment, if at all.

I wish to state that the sponge tent in these cases was successful, followed by no bad results. I once was made a victim and outwitted by a girl who applied to me for treatment. She complained of difficult menstruation, and I found what, in my judgment, I supposed to be a congested condition of the organ; without any suspicion, I dilated the os, which was followed by abortion. It was an error in diagnosis—outwitted by this girl; she accomplished what others have done since. I have since gone to others in the same way, acceded to the request for an examination but did not investigate, and in the same way produce miscarriage and induce labor. I have been particularly careful since that experience; none of these cases occurred very recently.

One word in reference to the crime of abortion. Dr. Noyes would like to have the ministers expend their eloquence in that direction. It strikes me that the state of society in this regard has more to do with it than the profession.

In regard to the young man spoken of by Dr. Noyes whose wife had defective menstruation of even two days, the Doctor directs a certain proceedure to bring her to her flow; in her own mind she remembers this and makes use of it when she is several months gone.

They treasure up most of those remedies to bring about a flow or a measure to produce abortion.

If the people had this matter properly presented to them by the physician this crime would not be so frequent. Intelligent people very many times have no idea of the thing they are asking the physician to do for them. A woman comes to me, says she has too large a family, too many children, she supposes herself pregnant again. If I say, "very well, the older children cost the most and you have too many children,just bring your oldest little boy and we will shoot him," it presents it in a very different aspect.

The Catholic church does a great deal to correct this evil and it is not near so common as among protestants.

You cannot reach these persons through the religious sentiment; they tell you there is no child there; people do not believe there is.

I know of a number of cases where I have spared the children in the foregoing way. I have persuaded them this way and afterwards delivered them at full time. If we can save one now and again it is a good deal.

Dr. Andrews: We must draw a line ; if a woman comes to you soon after marriage complaining that she has passed the usual time for her turns, you do not know that conception has taken place ; it is otherwise when pregnancy has gone on to two or three months. I do not think that a case like the former should be considered as abortion at all.

Dr. Noyes: Suppose a case comes to any one of you doctors, a person who has been married a short time says to you just as this young man said to me: "My wife, doctor, has not had her turns, they should have been on three days ago." He says to you she is sick in consequence of it. She has made herself sick and she declares she will die and has not eaten anything for four days, in a perfect state of excitement. What would you do; every one of you answer that question, would you not do as I have said I did? You could not say she was pregnant, in such a case. I think you would.

Dr. Spalding: Dr. Noyes will excuse me. He has mistaken my meaning altogether. I merely meant, in speaking in that way that we as physicians are a little too careless in prescribing direct measures for women to follow, and if a woman gets hold of the right prescription and given directions to bring on her flow, if she suspects pregnancy she takes advantage of it to produce abortion, married or unmarried.

Dr. O'Connor, of the Marine Hospital, said: I remember one case of abortion I attended some three or four months ago induced by the oil of pennyroyal, this case was followed by very violent attack of metritis.

Dr. Cleland: How long after the abortion.

Dr. O'Connor: About three or four days after the fœtus had come away.

Dr. Andrews: I saw a list of twenty or thirty cases a few weeks ago. An analysis of them showed that more than a half died, and only a few of those that died brought about abortion, which was a prelude to death.

Dr. Cleland: I know a case where a woman poisoned herself by taking ℥ ss of tansy.

Dr. O'Connor: The negroes of Virginia and North Carolina produce abortion with cotton root.

Dr. Andrews: I have never known a case where drugs succeeded, but a druggist up the avenue, I am told, does a large trade in this kind of drugs.

Dr. L. Connor: I am interested in this matter, from the fact that a week or two ago a prominent editor of a city newspaper said, so far as he knew, that physicians will produce abortion whenever called upon. He backed up his statement by letters from the doctors. Since that time I have asked a number of doctors engaged in obstetrical practice with reference to that point, especially with reference to any necessity that they themselves had seen,for the purpose of saving the mother's life. So far as I am aware the reputable part of the medical profession does not believe in producing abortion, except to save the mother's life. The testimony of those that I have mingled with has always been this. My observation has been similar to that of Drs. Andrews and Cleland. One physician in a large obstetrical practice never saw but one case, and even then the question arose as to the necessity of producing abortion. There is no class of cases rarer, aside from those mentioned.

A woman came to my office not long since, advanced four or five months in pregnancy; with retinitis. The retina was spotted all over, as though some one had given it a daub with white paint; more in the lines of the vessels than otherwise; a very beautiful picture. The question arose, what should be done? It seemed to me that the damage to the eye was as bad as it would be. The fœtus, as far as I could learn, was then dead. My advice was to let the fœtus alone and it would come away itself. In the course of a week or so both eyes improved, and the lady within two months was delivered by a medical friend of mine of a dead baby. The patches in the retinæ almost entirely disappeared, only one in the line of the inferior retinal artery remained, about two or three millimetres in length. This, probably, will remain there.

JUDSON BRADLEY,
President.
MORSE STEWART, Jr.,
Secretary.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Certificate Writing as a Mode of Medical Advertising.

A PASTOR of a prominent church in a recent discussion remarked that so great was the love of notoriety in certain doctors that they actually paid each month the lay press for publishing items respecting their movements. At the same time they professed to be greatly shocked that such notices should appear in the press. As the clergyman was a stranger in the city in which he was preaching he stated that his observations had been made in another town. A Detroit Daily remarking upon this statement said that in Detroit it was against ethics to pay for such advertising, intimating that it was "deadheaded." But it is not our desire to specially discuss this mode of medical advertising.

During the past year we have called the attention of our readers to the damage that has actually come to certain individuals prominent in the profession from their giving certificates attesting the excellency of a certain mechanical device. But there is another side to the question, viz.: the harm to the profession and the people. In Great Britain the matter has been discussed by the Royal College of Physicians and the following conclusion reached in form. "That the system of extensively advertising medical works and the custom of giving laudatory certificates of medicinal and other preparations and medical and surgical appliances, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions of the Royal College of Physicians." In the debate before the council a prominent medical man said that he had been paid five guineas for a certificate praising a "favorite natural aperient." Here we have thus exhibited one distinct reason for the giving of medical certificates. But the Royal College of Physicians says that the giving of such certificates is, (1) misleading to the public and (2) derogatory to the dignity of the profession. Granting that these points are well taken it follows that this man for five guineas deliberately misled the public and lowered the dignity of his own profession. In short he was a deceiver of the people and a betrayer of his craft, all for money.

For years we have noticed an increase in the custom among medical men of certifying to proprietary medicines, etc. In the list of those following this custom we have seen and still do see men of all grades in the profession, but a larger proportion of professors in medical colleges, medical editors, presidents of medical societies, even of the American Medical Association. Last spring it was brought to the notice of Prof. S. D. Gross and Prof. Bartholow that their names were being used to bolster up the sale of certain proprietary compounds. Each of them publicly denied that they had permitted such use of their names and denounced the practice. In a late issue of the *Michigan Medical News*, Dr. J. B. Book says that he did not authorize the publication of his name as a public endorsement of "BROMIDIA" and "IODIA" in any such manner as has been done in a pamphlet lately distributed about Detroit. One of these pamphlets has come to our notice, and we find appended to endorsements of "IODIA" the names of thirty-six medical men, professors, editors, medical journals, etc. To the laudation of "BROMIDIA" we find attached forty names of medical men and medical journals. In the separate cases we note the specialty of each man's individual practice. Thus we find attached to the several names designations of the department of medicine to which they are devoted, as follows: "Lecturer on Diseases of the Throat," "Professor of the Principles and Practice of Medicine," "Professor of Obstetrics," "Superintendent of an Insane Asylum," "Professor of Therapeutics," "Professor of Clinical Medicine," "Professor of Genito-Urinary Diseases," "Professor of Ophthalmology," "Southern Clinic," "Louisville Medical News," "St. Louis Clinical Record," "Professor of Nervous Diseases," "Professor of Mental Diseases," "Editor Chicago Medical Examiner," "Professor of Diseases of the Kidneys," "Professor of Surgery," "St. Louis Medical Journal," etc. Thus, physicians' names, through these certificates, are publicly advertised in connection with some particular set of diseases, or special kind of medical work. Unquestionably, many are thus brought before *a* public and kept there who would otherwise be unknown to this same public. Equally true is it that both notoriety and increased business accrue to them from such advertising. This being admitted, it is pertinent to inquire: have these gentlemen permitted their names to be thus employed? Or have the proprietors of the proprietary articles used their names without their consent, as we know to have been the case with Prof. S. D. Gross, Prof. Roberts Bartholow and Prof. J. B. Book? We hope that if the names of other medical gentlemen have been thus fraudulently used in connection with certificates of nostrums and proprietary medicines, they will make it known at once. We desire to avoid even the appearance of doing injustice to any person through the pages of the DETROIT LANCET. But we do claim that according to the late ruling of the Judicial Council of the American Medical Association, all members of that body who deliberately permit their names to remain attached to such certificates as those published in connection with BROMIDIA, IODIA, etc., are amenable to charges and expulsion from honorable membership in that body. We do claim that, according to the ruling of the Royal College of Physicians of Great Britain, such men are deceivers of the people and traitors to the profession.

The text of the American Code of Ethics reads thus: "Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive property of himself or others. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

For our purpose it is sufficiently accurate to say that a "secret nostrum," a "patent or secret medicine," is a remedy or a preparation which it would be unlawful for any particular pharmacist to make, if he were willing to take the time and trouble and had the proper knowledge of his profession. Yet in the "BROMIDIA" et "IODIA" circular to which we have alluded, physicians are coolly asked to notify their druggists that Battle & Co., the manufacturers of "BROMIDIA" have employed detectives to watch them and so prevent their making "BROMIDIA." A doctor to tell his druggist that a manufacturing firm have placed a detective on his track! Wonder whether Battle & Co. have sent a pamphlet to druggists telling them that detectives have been placed upon the tracks of physicians to protect their (Battle & Co.) rights. Thus, it is plain that this firm has endeavored to make the doctor suspicious of his druggist, and so deprive him of the co-operation of his best ally.

It is remarkable that any doctor's certificates could be needed to establish the reputation of "BROMIDIA." A laboratory note from the eminent chemist, Dr. A. B. Lyons, of Detroit, published in preceding pages of this issue, shows that the sample of bromidia which he analyzed did not contain nearly the amount of bromide of potash and chloral hydrate which the label stated that the bottle contained. In short, this special sample was a fraud.

But suppose that it contained the full amount of bromide of potash, chloral hydrate, cannabis Indica and hyoscyamus that is claimed, what is there in it that every well educated doctor is not entirely familiar with and that every well educated pharmacist is not entirely competent to dispense? We affirm without fear of contradiction that it is simply an insult to the honesty and competence of a druggist for a physician to send to him a prescription containing BROMIDIA. Shall the doctor thus tell his druggist that he cannot trust him to make a mixture of fifteen grains of chloral hydrate, fifteen grains of bromide of potassium and one-sixth of a grain each of cannabis Indica and hyoscyamus? If the merest tyro could not make up this mixture, he should at once leave the practice of pharmacy and go to digging ditches.

It is no wonder that pharmacists and doctors are at loggerheads when, at the request of the proprietary medicine dealers, physicians condescend to deliberately insult their druggists. Such being a brief statement of some of the facts of the case, what reasons can be adduced for writing the certificate found appended to these wretchedly unscientific compounds (to put the matter mildly)? We answer that so far as we have been able to learn these certificates may be divided into four classes: (1) Those that have been obtained without the consent of the reputed author, as in the instances of Drs. Gross, Bartholow, and Book. (2) Those obtained through that thoughtless courtesy which cannot say "no" to any request. (3) Those obtained with the writer's intent to gratify his own love of notoriety by having his name scattered far and wide. (4) Those obtained, like that of the Englishman quoted, in return for a money reward, either directly or indirectly.

It would save much trouble and great injustice if every gentleman whose name is appended to certificates of copyrighted medicines would signify whether it is thus placed of his own free will. If it is not, then his name will at once be withdrawn. If it is, we shall know that he deliberately desires to be known as a contemner of the rules of professional life that have been established by the profession of the entire English speaking race. We shall know that he cares more to personally advertise himself than to respect the rights of both the medical and pharmaceutical professions. Having thus secured the real positions of these medical certificate writers, the profession will be enabled to properly classify them and take such measures as will render it undesirable for them longer to continue their demoralizing practices.

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The Death of Dr. Edward Cox, "Practicing Physician for 44 Years."

Another of the pioneer physicians of Michigan has gone. For more than forty years Dr. Cox has lived and labored in Battle Creek. He was an excellent doctor, but he was far more than a doctor. He was a man among men, acting, thinking and speaking in reference to all questions of importance to the welfare of his city, his state, and his country. While a politician, in the best sense of that term, he was more. He was ever a patriot. When the war with the south broke out, although a democrat, he at once suggested, and succeeded in realizing the suggestion, that the flag poles of the separate parties should be spliced together, as an emblem to those who should see it that in support of the country the mass of the members of both parties in Battle Creek were ONE. Until July 1st Dr. Cox continued to meet all the calls of an extensive general practice. Attacked first with pneumonia, he finally succumbed on September 19th. At his funeral on the 21st were gathered representatives of the medical profession from all parts of the State of Michigan, as well as from his town and surrounding counties. Nor was the attendance of these gentlemen a mere formal service, as their speeches at the memorial service will abundantly testify. It is very unusual, to say the least, that so many friends in all professions and walks in life for many years testify so uniformly to the value to them and to the world of a strong, manly heart and head in a member of the medical profession.

From the Battle Creek Daily *Herald* we extract the following details of his life and career:

"Dr. Cox was born on the 6th of January, 1816, at Cambridge, Washington County, N. Y. In 1819, when Edward was three years of age, his parents removed to Onondaga county, where after suitable literary preparation, he studied medicine, and afterward attended lectures at Geneva Medical College, at which institution he took his medical degree in January, 1839.

He commenced practice in Wayne county, N. Y., where he remained but six months, and in September, 1839, he arrived in this city, then a village of but a few hundred inhabitants, and permanently established himself as the second regular medical practitioner of the place, Dr. William Campbell, with whom he associated himself in professional practice, being the first. At that time, the young physician and the community in which he cast his fortunes, had a future to be made by their own enterprise and energy. Only three years had elapsed since its first framed building had been erected, and the advantages of the little hamlet for a professional career largely consisted in premise. Here, however, Dr. Cox cast his lot, and soon with his associate, Dr. Campbell, built up an extensive, and for those days, a lucrative practice.

With characteristic energy and public spirit he identified himself with measures for the growth and improvement of the place and soon not only took a prominent position in his profession, but came to be regarded as one of our foremost citizens.

For many years he continued practice in connection with Dr. Campbell, and at one time Dr. S. S. French was associated with them in professional labor. To his profession he ever showed the most constant loyalty and devoted himself to the researches of his favorite science, both old and new, with unremitting enthusiasm. He welcomed and availed himself of all the recent discoveries, and improvements in medicine and surgery, while stoutly maintaining his allegiance to the regular school in which he was educated. For many years, and to the close of his life, he was one of the leading members of the Calhoun County Medical Society, and was a member of the State Medical society from its formation, serving on its most important committees and in 1878, was honored by being made its president. At the time of his death, he was one of the State Councillors of the Detroit Medical College, a position to which he was appointed by the Trustees. Dr. Cox was also a member of the American Medical Association, having represented his State in that body, as also in the International Medical Congress convened at Philadelphia in 1876.

Dr. Cox was an able and incisive writer on medical topics and prepared many important papers to be read before medical societies, besides contributing articles to medical and other periodicals, which for their practical and scientific value, attracted wide attention. It was an especial aim with him to maintain a high standard for his profession, and he resolutely opposed every tendency to its degradation to mere mercenary designs and uses. Some of his more recent productions were devoted to the awakening of an interest in this purpose, both among the medical fraternity and the public at large. One of these contributions was extensively copied and elicited the strongest commendation from the leading medical journals and physicians of this country and Europe.

Among the latest of his efforts with the pen was the preparation of a series of obituary articles written at the request of the County Medical Society. These embraced biographical sketches of several of the pioneer physicians of the county and upon them, the deceased bestowed great care and the most affectionate interest.

Frequently within the past few years has Dr. Cox, in the hearing of the writer of this notice, been heard to express his deep interest in his profession and to declare that it chiefly circumscribed his ambition. He stated that its honors were those which he most highly valued, and grateful as might be to him the expressions of public confidence bestowed by his fellow citizens, political distinction and partisan prominence were far less prized by him than usefulness, success and good standing in his chosen profession. In accordance with this sentiment, a few days before his death, he expressed the desire that the words "Practicing Physician for 44 years," should be inscribed upon his coffin as declaring the leading work and purpose of his life, and embodying the essential feature of his career, which he desired to leave impressed upon the memory of his fellow men.

But the life of Dr. Cox would be only partially sketched without allusion to his political character and his traits as a party leader. He was first most actively identified with the politics of the city and State, a little less than forty years ago. About 1844, he became conspicuous as one of the Young Democracy who began to assert themselves and to assume prominence in the place of the older members of the party. Among these, Dr. Cox soon took marked prominence. Ardent, resolute, tenacious and aggressive, he eminently possessed the qualities requisite for leadership. From this time forward, his tact and judgment rendered him peculiarly influential in the counsels of his party until he became at length its most prominent member in this section. When his party was in power, he was ranked with the more liberal, progressive element, but after the ascendency, in the county, State and Nation, had passed to other hands, his caution in regard to accepting new and untried methods for restoring its supremacy, caused him to take rank as a conservative and he has for many years been regarded as among the most stalwart leaders of the Democracy.

Dr. Cox received frequent marks of party confidence and honor. Besides the various positions held in his own city and county, he was at one time a member of the State Central Committee and in 1872 was a delegate to the Democratic National Convention at Baltimore. He was offered nominations on the State ticket, but invariably declined.

So far as his own city was concerned he abundantly shared its honors, having been president of the village, in 1853; one of its first aldermen, a position which he held for six years; and mayor for two years, in 1873-4. He was also at one time a member of the school board and has been connected with numerous organizations for the public benefit. For many years past he has been a member of the cemetery board of which he was president at the time of his death.

In the Masonic Order, Dr. Cox held a foremost position in the State, having been Master of the lodge in this city, a Knight Templar, High Priest of the Royal Arch Chapter and Grand Master of the Council of Royal and Select Masons.

For many years he held the position of vestryman in St. Thomas church, having been strongly attached to the doctrines of the Christian faith as held by the Protestant Episcopal church.

The deceased was twice married. His first wife was Esther Ann Starkweather, to whom he was married September 2, 1840, and was the first adult person buried in Oakhill Cemetery.

On the first of May, 1845, he was married to Miss Sarah Adams, of Pennfield, with whom he lived most happily and who survives him. Three children were born to him, one by the first wife, a daughter who died at the age of eight years, and two by his second wife who died in infancy.

Three sisters of Dr. Cox survive him, Mrs. Dr. S. S. French, who has been confined to her room for the past year by illness; Mrs. T. C. Gardner, of Port Huron; and Mrs. M. H. Joy, of this city.

With a heart as tender as that of a child, he was devotedly attached to children and they returned the attachment in large measure, so that he will be missed by the members of the rising generation, almost as much as by those who have known, honored and loved him for more than a generation now past. His long and useful life in our midst is in itself an imperishable momment to his memory.

After the return of the funeral procession from the grave, the large Episcopal church was filled with the friends of Dr. Cox to give an informal expression of their appreciation of the deceased.

Rev. Dr. Sidney Corbett then made some very appropriate remarks eulogistic of the deceased and was followed by George Willard and Judge B. F. Graves, of this city, Dr. O. C. Comstock, of Marshall, Prof. A. B. Palmer, of Ann Arbor, Dr. Ranney, of Lansing, Dr. Johnson, of Grand Rapids, Dr. Milton Chase, of Otsego, and Dr. Leartus Connor, editor of the Detroit LANCET.

The addresses, given as they were by warm personal friends of Dr. Cox, all took the character of affectionate tributes to his memory and gave expression to the very great esteem and regard which his admirable career as a citizen and as a physician, had deservedly called forth in the community in which he had so long lived, as also throughout the State.

The speakers from abroad who took part in this expression are among the leading representatives of their profession and accordingly the testimony borne by them to the high standing of the deceased and to the estimation in which his professional qualifications and attainments were held by the members of his own fraternity, were exceedingly gratifying, as they were felt by all to be sincere, and to be no more than just. The memorial addresses were a fitting utterance of the general feeling of the great loss sustained by the community and by the profession, in the death of Dr. Cox, and abounded throughout with a sympathetic tone and an elevated sentiment thoroughly in keeping with the occasion.

At the conclusion, Hon. W. W. Woolnough, after speaking of the deceased in terms of the most appropriate eulogy, presented the following resolutions, which were unanimously adopted by the assemblage:

WHEREAS, It hath pleased the kind and all-wise Creator to call from this life our eminent fellow citizen and distinguished physician, Doctor Edward Cox, therefore,

Resolved, That in his death we painfully recognize the loss to this city, county and state of a valued citizen; to the medical profession, one of its ablest and noblest representatives; to suffering humanity, one of its warmest and most earnest sympathizers, and to his family a kind and indulgent supporter and protector.

Resolved, That as a citizen his chief aim was the public good, his mature judgment and practical sagacity being never at fault, either in originating or supporting such enterprises as might contribute to that end; and out of his purse flowed generously such aid as was necessary in the case.

Resolved, That as a physician, he contributed largely to maintain for his profession a high standard of excellence as well as practical utility; that his contributions to its literature have been numerous and marked by distinguished ability, and have attracted wide attention among medical and scientific men throughout the country, and some of the foremost publications in foreign lands have been honored by their republication.

Resolved, That the warmest sympathy of this city goes forth to the relatives of the deceased in the irreparable loss they have sustained in his death; but to them is commended the consolation afforded by the reflection that though he will no longer be present among them, the remembrance of his good deeds and sterling worth abideth with them forever.

Some of the Inside Workings of a One Man Medical College.

The readers of the DETROIT LANCET will recall some items relating to the operations of the Columbus Medical College, lately published. First appeared statements from the president of the West Virginia State Medical Society to the effect that Columbus Medical College had, after a short attendance, given a diploma to a man whom the State Board of

Health of that State had found unworthy to grant a license to practice medicine. This was followed by a statement from the college to the effect that it was justified in its action. The board then announced that the diplomas of the college would not be recognized until the board had evidence that the college actually required of its candidates for graduation that which it stated in its catalogue it would require. In short, it demanded that the college should exercise common honesty in making its statements as to its requirements for graduation.

Meantime a personal element was mingled with the details of the case and to this the college diverted attention. The personal element was vested in a resigning professor.

In a recent paper this gentleman, Dr. J. F. Baldwin, well known as the able editor of the Columbus Medical Journal, makes a full exhibit of his relations to the case. From this we make a few quotations as deemed of general interest. He says: "But I was a man, not a 'toady nor a puppet;' and I dared to do some surgery, and so 'off with his head,' for he who would retain the friendship of this man (the professor of surgery in Columbus Medical College) must do no surgery in Central Ohio nor fail to call him in consultation in surgical cases."

"My connection with the college has never been used by me to secure practice. Few of my patrons have ever known that I was so connected. Indeed, the honor of such connection has always seemed so questionable to me that I have never allowed even students to call me 'Professor.'" * * * * "Since my retirement to private life I have learned several things in regard to the college of which I was previously ignorant, and which had I known would have led me to resign long ago. I have absolute proof of the graduation of one man who had never attended a previous course of lectures and who made no claims to have done so. I am in possession of facts also, which I have not yet verified, to the effect that at least two others have been granted diplomas on a single course of lectures. Short time men *a la* Dent, are too numerous to mention. Finally, I have been shown a letter written by the dean, in which he tells the person addressed, who has had but one course of lectures, that he can graduate by paying half the term fee, all the graduation fee, and passing an examination in practice, surgery and obstetrics, and that he need not come to lectures until examination week." Again: "But it was up-hill work to support the declining fortunes of a school which, founded upon hate, was not expected to outlive its founder. The school having no hospital, no clinics—save the Saturday morning clinics of Dr. Hamilton—no museum worthy of the name, none but the crudest means of instruction, and only an ill-arranged college building, was unable to stand the pressure of honorable rivalry with a school having all the advantages which it lacked, and so it came through its officers—for the faculty as such was kept in ignorance—to prostitute itself to diploma seekers." Lastly: "Dr. Hamilton owns the college building for which he gets a good rental from the college; he owns a majority of the stock of the college, so that he elects his own trustees; he causes himself through the trustees chosen by himself, to be elected treasurer of the college also, and in the same way to be elected secretary of the board, and to be placed in charge of the college building and even of the dissecting material." Total absolute ownership. According to the Ohio law it seems that this college stands liable through its officers to be fined and its officers imprisoned.

This history is very instructive and in its fuller details much more so than the quotations we have made. If all these statements shall prove to be capable of legal proof the Columbus Medical College should be wiped out of existence, and the active participants in it denied the honors of an honest profession. From what we have stated it will appear that the statements of the other side do not at all mend matters. In short the Health Board of West Virginia based its rejection of their diplomas upon the College officials' statements.

1. As the matter stands, we have an illustration of the viciousness of the effects of one man power in a medical college. It has ruined medical colleges better than that of Columbus.

2. A college found in a spirit of hate or envy or jealousy is scarcely likely to crown its projectors with honor or advance the interests of the medical profession.

3. A college conducted simply to advance the professional and financial interests of its owners will scarcely avail in advancing the standard of medical education.

4. Would that it were possible in a similar manner to exhibit to the profession the real workings of every medical college of the land. Certain is it that many schools would make a showing in manner identical with that of Columbus. But that which is

every one's business is likely to be no one's business and so many schools have been permitted to exist in a manner quite as loose and dishonorable as that of the school a page of whose history has now appeared in public. If any one flatters himself that the Columbus Medical College is a sinner above all others or stands alone, a little investigation will reveal the fallacy of his judgment.

5. There are few teachers in the smaller medical schools who will not agree with the experience of Dr. Baldwin that as he did not use his college position to secure practice it was of no value to him as a business enterprise. In fact it is quite probable that the same statement will apply to the positions in schools honorably conducted, with the interests of the school and the profession ever in mind. For the common good we can hope that Dr. Reeves of the West Virginia State Board of Health will unfold the workings of other medical schools. He has our thanks for this investigation. In the interests of the honest medical schools we shall hope that similar exposures will follow until the temple of medical education becomes the glory of the profession rather than a "den of thieves."

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The Duped Doctors.

In a paper read before the Connecticut State Medical Society, Prof. C. A. Lindsley, M. D., of Yale College, discusses the demoralizing effects on the medical profession of the prescribing of proprietary medicines. We have space for but one quotation illustrating the manner in which doctors are duped by the vendors of proprietary medicines. He shows that no works on therapeutics or materia medica advocate the use of such medicines, or medicines thus sold. He says that his sincere conviction is that "the extensive sale of proprietary medicines is secured through the prescriptions of medical men, by precisely the same system of persistent, boastful advertisements and certificates, applied to our profession, that secures the sale of Vegetable Liver Pills, Hop Bitters, and all such trash, to the general public." The following illustration is familiar to all:

"Scarcely any of the proprietary medicines have found more favor with our profession than the syrup of the hypophosphites of soda, lime and potash. So extensively has it been prescribed, especially for tubercular diseases, that almost all the makers of ready made medicinal compounds have found it most profitable to engage in the manufacture and sale of this preparation.

"It is now more than twenty years since Dr. J. F. Churchill announced to the Imperial Academy of Medicine at Paris that he had made a discovery of a specific cure for tuberculosis. His report was accompanied by a detailed statement of the use of the soluble salts of the hypophosphites of lime and soda in thirty-five cases, of which nine were cured, eleven were improved, fourteen died, and one was still under treatment."

The keen perception of business men was not at fault in seizing upon the time and the occasion to develop a field of enterprise, which, under their skilled cultivation, has yielded them a bountiful harvest.

"Observe the conditions. One of the most eminent centres of learning in the world receives the announcement that a specific cure for consumption has been discovered. The disease is among the most fatal that afflicts mankind. Throughout America, and in most parts of Europe, its victims outnumber those of any other malady. It is a chronic affection, lasting months and years, during which the patient seldom despairs of recovery, and is a faithful taker of medicine until death. What a magnificent opportunity for an enterprising business speculation. From statistics carefully studied it was estimated that from eighty to one hundred millions of the inhabitants of the globe were annually carried off by some of the forms of this disease, and therefore should be legitimate customers for this newly discovered cure. The opportunity was not neglected. Without delay the manufacture of the compound was undertaken by purely business men, as a purely business enterprise. They assumed at once the labor and the cost of promulgating the discovery. It was announced, and is still, as the most brilliant of the century. Announcements, circulars, certificates setting forth the wonderful properties of the hypophosphites began to be poured upon the profession through every avenue of approach, and the shower has never ceased or abated. The following is a sample of the style: 'The success attained in all the countries of Europe, as well as in the United States, has established the therapeutical value of the hypoposphites beyond all controversy and prejudice into the serene region of scientific truth.'"

By every device and art known to skillful advertising, the sale of this proprietary medicine has been promoted and maintained and almost wholly through the physician's prescriptions. We have never been permitted to lose sight of this remedy for a day. It is obtruded upon our attention in every possible way, and the results are just what the shrewd business man foresaw. They have used us to make a market for their merchandise. The medical profession prescribe the hypophosphites very largely, and, sad to say, their confidence is based almost wholly upon the advertisements of those who traffic in them, and upon nothing else. I appeal again to your knowledge of facts to tell me what recognized authority in therapeutics recommends the use of these hypophosphites."

He then specifically quotes a large number of the recognized authorities on therapeutics, and it appears that either they omit all mention of these medicines or speak disparagingly of their value. Hence it seems impossible that their enormous sale through the profession could have had any other origin than the blind trustful credulity with which the profession has received the exaggerated statements of their powers as set forth in the advertisements of their proprietors. What else in fact can be found to recommend these syrups of the hypophosphites besides the boastful proclamations of those who make them to sell?

Very many doctors are fooled by these advertisements quite as much as the ministers and all others who write medical certificates. Shall they not throw off the chains by which the "nostrum mongers" have bound them and assert their professional rights as scientific men? Will they not do it now?

In selecting their remedies for the treatment of disease will they not choose the authority of men of science rather than that of simple business men, the authority of works on science by reputable writers rather than the tracts, advertisement and pamphlets of the drummer?

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What are the Principles of Fair Dealing Between Physician and Pharmacist?

One of the best answers to this query is made by Mr. H. R. Cowdrey in *New Remedies* for September. As it more nearly represents our views than any statement we have seen, we give the author's conclusions. It will be observed that it is made the duty as well as privilege of the pharmacist to make or select such preparations as he may deem best. When this confidence is reposed in him, his own interest will stimulate him to exercise the highest powers of his art. As the honored and trusted aid of the physician he will strive to look after his own field and keep out of that properly belonging to the physician. But we give the author's own words.

"The physician should, in all possible cases, leave to the honest pharmacist the selection and decision of what drugs and preparations are most reliable. If he finds the pharmacist has decided that a particular make is the best, he should be careful how he orders another make to be dispensed in his prescriptions, *unless he has positive proof that those he selects are better.*

"In all cases of a thoroughly competent pharmacist, the physician should throw no hindrances in the way of dispensing of that pharmacist's preparations in preference to those of other manufacturers, *unless he has good and sufficient proof of their inferiority.*

"The physician, in justice to a pharmacist, should never prescribe an article which is monopolized by one person or firm, and to manufacture which the pharmacist would be liable to fine and imprisonment. Nor should he prescribe those articles which are secret in formulæ, so that the pharmacist, however well informed, cannot produce them. To a large extent the life and progress of pharmacy depends upon this course.

"Toward the physician the pharmacist should always show a careful regard for his best interests. In all cases avoid repetition of prescriptions, where there is a doubt as to the right way. Avoid counter prescribing, under any and all circumstances, when there is a physician within reasonable distance. A good rule it is to decline to prescribe for customers. Tell them that in the end it is the cheapest as well as the safest plan to see some good physician.

"The sale of proprietary medicines can be discouraged to a great extent. The pharmacist should never recommend them; and in cases where the physicians fulfilled their part, I would earnestly recommend the pharmacist to avoid displays of proprietary medicine signs and distribution of their advertisements. Toward the physician act as a co-laborer. If any new devices come to your notice, or any improvement in quality of goods, bring them likewise to his attention. In this way encourage confidence, and act as a smooth-tongued drummer for your own house. With this unity of interest and brotherhood of feelings, the relation of the physician and pharmacist would be more pleasant, and the science of therapeutics and pharmacy could advance side by side, each well pleased at the progress of the other, each ready to defend and protect the other from the encroachments of enemies."

It strikes us that if physicians picked out their pharmacists according to their competency and honesty and formed a league with them on the foregoing principles, great gain would result to all, including the people. All would tend to advance along the right line of their proper development. As in a certain sense the leader, it perhaps falls to the physician to make the needful advances. Especially is it important for him to encourage the pharmacist to exercise his skill and his knowledge in the selection of the required preparations, and in preparing the same. Especially will he refrain from insulting the pharmacist by sending him a prescription for copyrighted medicines, the preparation of which is a simple matter to the half-educated pharmacist.

Ex-President Woolsey on the Principles of College Management.

The *Century* for September gives an excellent account of the general characteristics of ex-President Woolsey's academic career. All educators admit that his career as a teacher and college president were wonderfully successful in the best sense of that term. Yale College owes to him more than it can well repay. Nor is the cause of education in general and the country at large under less lasting obligations to his wise council and earnest work. When he closed his career as President he handed to his successor and to the world as of primary importance in the government of such institutions the following principles:

1. No person ought to be chosen into a faculty without the assent of the body of which he is to be a member. In other words, the professors should have the right to nominate or reject all applicants to their body. Where this right exists the faculty are likely to be a united body. Thus they will be enabled to co-operate cordially and efficiently in promoting the good of the college. When by the fiat of the board of trustees, professors are thrust into a faculty who are distasteful to their colleagues, mischief is almost sure to arise. Farther, the faculty are altogether more competent than anybody else, or any collection of persons to judge of the fitness of candidates for chairs of instruction. To guard against favoritism it is sufficient that the corporation must approve of the selection.

2. The internal administration of the college should be left mainly in the hands of the faculty. They make it their business to take care of the college. They are upon the ground, know the students personally, are conversant with education in general and their own departments in particular. The trustees take care of the funds and should be interested in their increase. They are the supervisors of all changes of importance. But in many American colleges incalculable harm has resulted from the meddlesome temper and dictatorial disposition of overseers who try to do that for which they are incompetent, interfere with the appropriate work of the professors, treat them as hired laborers. It is said that thus far the literary department of Yale College has escaped such tribulations. With the continuance of the quoted principles it is likely to continue on in a course of uninterrupted prosperity. The same principles here given are as essential to the prosperity of a medical college as of a literary college. The harm to medical education has not been less than to general education from the disregard of them. We have long maintained these principles and are pleased to have them supported by the experience of the leaders in education, and the prosperity of the very best of educational institutions. Readers of the DETROIT LANCET will recall illustrations of the harmful effects of a disregard of the same principles by medical colleges.

The Naval Museum of Hygiene.

A circular from the Navy Department lies before us. It explains the nature of the museum whose establishment is proposed and calls upon physicians and all others interested in the development of such a museum to aid by donations the project and exert all their influence to cause Congress to appropriate $10,000 for its maintainance for the coming year. An appropriation of $7,500 was made at the last session of Congress for it. In addition to a museum proper it is proposed to establish a course of lectures by sanitarians throughout the land and a library of sanitary science.

The museum will collect all that is illustrative of public health and comfort, of life-saving and preserving. In so far as the museum and lectures are concerned, we think the project a very worthy one, but in respect to the library we are in doubt. In the same city in which it is proposed to establish this library there is already established the finest medical library upon the continent, if not in the world. Just now its index is being published in an exhaustive manner worthy of the gentleman supervising it, of the medical profession and of the government. All the literature pertaining to sanitary subjects is being accumulated within this library, and its main promoter is the first sanitarian of the land. Is it not rather superfluous to attempt the establishment of a second library in the same city containing works on only one branch of this science? Then if the library could be dispensed with, more money would remain to invest in the museum proper. Nor is the enterprise likely to get more money than will be needed for this part of the plan. The general project has our hearty approval, with the single exception to which we have directed attention. We hope that all having influence with the members of the coming Congress will exert it in instructing them as to the nature and importance of this enterprise and the reasons why the government should furnish it the means needful for the prosecution of its work.

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Shall We Have a Journal of the American Medical Association?

This question is now fairly before the medical profession for actual solution. For several years attention has been directed toward this end. Such progress has been made as at last to place the matter in such a form as to permit the profession to at once decide it. At the St. Paul meeting, last June, a board of trustees was appointed to agree upon a plan for the journal and lay it before the profession, asking for subscriptions to the journal. This the board has done, and in the form of a circular it lies before us. The plan calls for a thirty-two page, double column, weekly journal, which shall publish, in addition to the papers, etc., read at the annual meetings, reports from the several state societies, editorials on questions relating to the entire medical profession, scientific papers, notices of books and current medical literature, etc., etc. The leading feature of the journal will be to especially aid in promoting the interests of the general profession as represented by the American Medical Association and its associated societies. To members of the association this journal will be furnished for the annual dues of members, viz., five dollars, and to others for five dollars.

The editorial management of the journal will be placed in the hands of the best man who can be obtained for a fair salary, say $6,000 per annum, he to pay his own assistants. It is probable that the editor will not be selected until the profession is heard from in the way of subscriptions, etc. If these are regarded by the board of trustees as sufficient to warrant the starting of the journal, the first number will appear July 1, 1883.

As to the desirability of bringing the several units of the medical profession closer together, there can be no question in the mind of any thoughtful person. Especially difficult is this in view of the vast distances that separate members from each other. To further this end no project seems to promise more than that of an association journal such as is proposed.

Elsewhere we publish entire the board's circular, but we desire to stimulate prompt answers on the part of all who receive the same, and of all others who desire to forward a good work in the interests of the common good. Fill out your order and send it at once to Dr. N. S. Davis, president board of trustees, 65 Randolph street, Chicago, Ill. If you do this, the success of the project is beyond doubt.

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Shall We Have a National Medical and Sanitary Exhibition in the Year 1882?

There lies before us a circular calling for the needful measure to inaugurate a National Exhibition, Medical and Sanitary, next year. It calls for the appointment of a commissioner from the several boards of health. We suppose the State and city boards are all invited to send such a commissioner. These commissioners are to hold a meeting in Indianapolis, Ind., October 18th, 1882. At this meeting these commissioners are to consider the best mode of devising ways and means by which such an exhibition may be inaugurated. The gentlemen issuing the circular are mainly health officers of State and city boards of health. An occasional editor and minister, etc., are introduced. The gentlemen calling for the appointment of commissioners are evidently public sanitarians and from it we are to expect that the exhibition will be essentially sanitary. The gentlemen having the matter in charge are perfectly competent to make the matter a success. There is no doubt either but the commissioners called for in this circular will be appointed and that the exhibition will be held. It is a matter of importance that the exhibition shall be so organized as to exert the greatest possible influence. In this respect all medical men and others interested in sanitary progress can exert a powerful influence. By discussion, with all interested in such things (and what householder is not so interested?) many more can be instructed in these things, and so among the people and profession existing sanitary truths can be scattered so as to bring good fruit in days to come. To bring together in one place all the known sanitary appliances is an immense labor, and to have them teach the whole people their proper lessons is a still greater labor. As the matter becomes crystalized we shall take occasion to still farther call attention to it. Meantime we commend it to the consideration of all our readers, as a matter they should take an active interest in. If in any manner it is possible for any to directly aid the project we trust they will not delay or hesitate to exert all their energies in its favor.

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Another Political Revolution in the Medical Staff of Cook County Hospital.

From the *Chicago Medical Journal* we learn that on Sept. 3d, the Board of county commissioners declared the whole medical and surgical staff of Cook County Hospital vacant, and appointed a new staff without the slightest reference to the interests of three or four medical colleges built up about this hospital, and largely depending upon it for clinical material for the instruction of their classes. It is further stated that it is quite certain that the Board will soon appoint a Medical Superintendent with a salary, and an *advisory board.* Of course such a position would be occupied by the doctor who could wield the greatest political influence for the political party in ascendancy. Why the Board should discharge men entirely competent, who are willing to work for *nothing* and substitute a *paid* officer, does not appear. Nor does it appear that the patients will be better cared for under the new system. We call attention to the fact as an illustration of the instability of any position held by a medical man when political influences control it. It is all right so long as the medical men can control the politicians, but to do this generally requires such associations and such acts as to be repugnant to most in the profession, and certainly degrades the doctor who caters after them.

Of the evil influences flowing from politics meddling with medical matters, most states can furnish abundant testimony. Certainly it will be a matter of regret if the great Cook County Hospital shall for any considerable length of time be kept from the medical teachers of Chicago. Nor can we believe that the Board will so neglect the interests of their supporters as to continue in the execution of such a scheme for any great length of time.

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Memoranda.

The circulation of the *British Medica Journal* at last Association meeting was reported 11,000 copies weekly.

The *Medical Herald* of Louisville, says: "It is generally believed that the Jefferson Medical School of that city has perished.

The German National Board of Health is said to have spent last year nearly four millions of dollars.

For advertising a specialty the Georgia State Medical Society, at its late meeting expelled Dr. D. O. C. Heery.

Dr. Francis Atwood, at the age of thirty-six, died of typho-malarial fever, Aug. 5, at St. Paul, Minn.

Prof. Hilderbrandt died suddenly of apoplexy, in Königsberg, Germany. Another eminent gynæcologist gone.

In its new regulations the Japanese government forbids men to marry till they are twenty years old. Women may marry at eighteen.

M. Papageorges reports the discovery in Salonica of the manuscript of Galen's works supposed to have been lost. The date is in the fifteenth century. Of the 248 original sheets of manuscript, 144 are in good condition, 24 are mutilated, and 80 are missing.

A writer in the *Medical Tribune Electic* advises that homœopathy and eclecticism at once "set down upon the bigoted self styled regulars." "We should not recognize them by council or otherwise." Amen.

It is said that two medical colleges at St. Joseph, Mo., have formed a union under the name of St. Joseph Medical College. We trust it may last longer than the union formed a year since, between the two Cleveland, O. medical schools.

The death rate in Detroit for the month of August was at the rate of 14.49 per thousand of population per annum. Of the 260 deaths, 116 were under one year.

The London *Lancet* says that the bad condition of apartment houses has but one redeeming feature from a sanitary point of view, viz., "the families occupying them do not often have children to suffer from the bad atmosphere."

P. Blakiston, Son & Co. announce the issue in October of a work on "The Diseases of the Liver," by George Harley, M. D., F. R. S. This writer is well known in this country from his work on the "Urine and its Derangements," etc.

A correspondent of the *Louisville Medical News* for Sept. 16, states that Dr. O. B. St. John Roosa is Professor of Ophthalmology in the University. When we last heard of him he had left this school and was building up the new Post Graduate school.

The Cincinnati College of Medicine and Surgery has been reorganized. The fees have been reduced from $75 to $35. We are told that it is in the control of the persons who formerly conducted it when it gave two graduating sessions in one year, etc.

The author has sent us a copy of the thirty-fourth thousand of *Leonard's Dose and Reference Book*, issued at Detroit by *The Illustrated Medical Journal Co.* Price in paper, 30 cts., in cloth, 75 cts. Its peculiar value is too well known to need further mention.

The cities of Newark and Jersey City use the water from the Passaic river. This river receives the sewage of Passaic and Paterson and the wastes from their numerous factories. Lately an addition has been made to the water in the shape of some 1,500 barrels of crude petroleum emptied into the river from a broken old pipe.

Dr. Bliss, of Washington claims that his services to the late President cost him $15,000 and that he should not only be reimbursed but that $10,000 should be added. In short he wants $25,000. Dr. Reyburn claims $10,000 which exhausts all that Congress appropriated to meet all bills for medical service. It is understood that Drs. Agnew and Hamilton will claim $15,000 each. Thus the claims for medical services are $30,000 in excess of the appropriations to meet these claims.

From some new data compiled by the inspector general of customs in China it appears that in that country $100,000,000 are annually spent upon opium smoking by 2,000,000 smokers, making a daily expenditure for each person of from 10 to 22 cents. He says that all Chinese who have studied the question are opposed to the opium tariff.

Dr. Harwell reports in the *Medical Journal* of Nashville a case in which a three-year-old girl swallowed a china doll an inch long, three lines in thickness with legs extended and arms flexed at the elbow so as to be at right angles to the body. It safely passed the rectum the next morning. Clear case of cannibalism in the highly civilized State of Tennessee.

The *Medical Tribune* of New York has the cheek to affirn that "It is evident that the proposed new medical school in that city was neither conceived nor organized in the interests of the profession, but simply to advertise a lot of specialists who thought they could make more money by this departure than they could in their former positions."

The Boston *Medical Journal*, which has steadily maintained the insanity of Guiteau, in its concluding remarks upon the results of the microscopical examination of the brain of said Guiteau, says: "After such a trial of such a man, hanging was probably the best public policy; but we still maintain that it would have been better policy to send him to a lunatic asylum for life without trial."

The old book store so many years known as E. B. Smith & Co., has been reorganized under the name of W. T. Berry & Co. Thorndyke Nourse still remains as one of the partners, but his personal attention is given to his paper and publishing business. Medical books are now kept in stock by W. T. Berry & Co., John MacFarlane, John Willyoung, and D. P. Work. Each of the stores are always glad to receive calls from members of the medical profession.

A case has come to the courts of Berne in which it is claimed by a young girl that she was mesmerized by a young man and then violated. Dr. Ladame, of Neuchatel, at the direction of the magistrate, made a careful investigation of the question in medical jurisprudence raised. From this it would seem as if traveling mesmerizers should be forbidden to exercise their arts.

From a report upon the chemical examination of twenty wells in Brooklyn, N. Y., we take the concluding sentence: "These analy ses show that nine-tenths of the wells examined are more or less affected by the sewage of the city, and must be a constant source of danger to the health of those who use them." Yet the people cling to them and resent all efforts to close them. They would rather have the water of death than to drink the water of life.

The *Sanitary Engineer* gives, from the authority of the New York Board of Public Works, a cut showing the condition of things underground in the streets of lower New York. The cut shows twenty-four separate structures as closely packed as it is possible. We have lines of sewers, gas pipes, water pipes, steam pipes, electric and pneumatic tubes, sewer basins, culverts and the appurtenance of these different works.

A Philadelphian thus laments: "The sewers empty into the water supply and the water supply passes through the sewers, and the water that is to be used comes into close contact with the water that has been used, and it is everybody's business to attend to the one and nobody's business to attend to the other. Thus things are in a bad way all around; there is no visible means of relief and nobody knows what we are going to do about it. So far as appears at present, we shall soon have to read the familiar text with a new word in it: 'Let us eat and drink, and to-morrow we die.'"

The *United States Medical Investigator* gravely proposes as the only way to settle the status of the homœopaths among the regular physicians is for one of their number to bring suit against Dr. N. S. Davis, as chairman of the judiciary council of the American Medical Association, for slandering the homœopaths as dogmatists. The suit could be carried, it thinks, to the Supreme Court of the United States and decided. Thus it thinks homœopathy would compel its recognition in both ethics and science. It is ready to contribute $5 or $10 toward the expense.

How much chemistry do medical graduates know? This is surprisingly small. The latest proof of this is from Dr. J. H. Hill, U. S. A., as given by his experience as a medical examiner for the army: "The Army Board has searchingly examined over 500 men, graduates in medicine, many also graduates in the arts, but of this whole number not more than two or three had any real knowledge of the elements of chemistry, and more were ignorant of the fundamental principles of physics. So flimsy is the chemical smatter possessed by most of the candidates that it has been found difficult to propose questions within their comprehension."

As a leading editorial the *Peoria Medical Monthly* presents a sketch of the life and labors and honors of Dr. Edward W. Jenks, for many years a resident of Detroit. We are always pleased to notice the honors heaped upon our old friends. A more extended biography a few months since appeared in a leading religious journal of Chicago. The *Michigan Medical News* lately had an appreciative notice of Dr. Jenks' recent movements and enterprises. From private sources we learn that his new private hospital for the treatment of the diseases of women, at Geneva, Ill., is full constantly.

The French Minister to Abyssinia desired the skeleton of an hippopotamus. When he arrived at the king's abode he found him laid up with articular rheumatism. Soon he was asked to aid in curing his sable Majesty. The minister answered the king that he could surely cure him. On inquiring for the remedy the minister answered that it was the fat from a pregnant hippopotamus. The animal was brought and the fat rubbed upon the king's joints and a cure effected. The foetus was sent to DeBlainville. To Hyrtl was given one of the temporal bones, the labyrinth of which reposes in the collection of the Philadelphia College of Physicians, and so says the *Philadelphia Medical News.*

At Roosevelt Hospital of New York, Dr. H. B. Sands has been made sole attending surgeon for a period of one year, beginning May 30, 1882. He is to have one assistant, to be appointed by the board of trustees. This is a great change from the former practice of having the attending surgeons change every three or four months. It is really the outcome of efforts made for a considerable time to improve the surgical work of the hospitals of that city. The *Medical Archives* thinks that it would have been better to have divided the service and appointed two surgeons of equal rank, holding continuous service. We shall watch this experiment in hospital management with much interest.

Gaillard's Medical Journal protests against the value of so many "brief" medical journals. He shows how the practitioners are fooled in that they are led to suppose that these brief journals furnish to them all that is worth knowing of the progress of medical sciences, etc. Being thus fooled they are unable to give to their patients that knowledge which of right belongs to them. In short, all parties are injured by this system of brief medical journals. We have waited long in the expectation that a reaction would come to this "brief" medical "furore." The article to which we have referred is one of the first evidences of the coming reaction.

The same journal says: "The New York Medical society certainly did not have a very clear idea of what it intended to do by its code, unless, as seems probable, it intended to advertise a few specialists as 'go-as-you-please' practitioners."

From the *Canadian Journal of Medical Sciences*, we learn that the doctors of the city are spreading their signs. At first they simply gave their names. Then they added their office hours, covering an immense space, sometimes beautifully colored. In other cases a good portion of the alphabet in capital letters follows the proper name. Sometimes a number of tin plates adorn the various parts of doctors' abodes, being especially profuse about the corners of houses and fences. Finally enterprise has added a street lamp or a huge gray stone slab, fashioned after a tombstone and decorated with the doctor's name. Fancy lights adorned with gilt letters over the enterprising doctor's door are naturalized. All these are but evidences of the tradesman's nature adopted by the profession.

In a review of the Guiteau case the *Canada Medical Record* has the following remarks: "The unfortunate conflicts of opinion and unseemly squabbles between medical men during the illness of the President and the trial of his assassin have not only tended to demonstrate to the general public how widely different are the views of representative men upon most important questions, but have also laid bare an amount of professional jealousy and professional rivalry which is highly discreditable to our profession. The profession was scandalized by the ignorance and assumption of such men as Dr. Bliss; the conduct of the medical attendants was weak and vacillating; their officinal bulletins were meagre and misleading. After the president's death even the autopsy was sadly bungled and the profession again publicly disgraced."

Dr. Raymond, Health Commissioner of Brooklyn, N. Y., reports the following analysis of a well in that city: "Appearance of water, dirty; considerable sediment; free ammonia, three parts per million; albuminoid ammonia, three parts per million; nitrates, very considerable; nitrites, considerable; chlorine, 9.5 grains per gallon; solids (filtered water), 84 grains per gallon; loss of solids in ignition, 33.3 grains per gallon. On ignition, nitrous fumes were given off in considerable quantity." He says we have now in Brooklyn not far from 300 of these pumps, many of them built forty years ago, and during all this time draining the ground for a considerable distance around them, and furnishing to the thirsty public a solution of filth of the streets, of the gutters and of adjacent vaults and cesspools." That which is true of the Brooklyn wells is equally true of the wells of every city or large town. In such a place every well not artesian is likely to be contaminated with the elements of disease, no matter how clear and sparkling the water may be. It is probable that in cities like Brooklyn, having an abundant hydrant water supply, the people hold on to their wells because of their cool water. Clearly the remedy will be to furnish them as cool drinking water in a safe manner.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—Trustees—N. S. Davis, M. D., President, Chicago, Ill.; E. M. Moore, M. D., Rochester, N. Y.; J. M. Toner, M. D., Washington, D. C.; H. F. Campbell, M. D., Augusta, Ga.; J. H. Packard, M. D., Secretary, Philadelphia, Pa.; L. Connor, M. D., Detroit, Mich.; P. O. Hooper, M. D., Little Rock, Ark.; A. Garcelon, M. D., Lewiston, Me.; L. S. McMurtry, M. D., Louisville, Ky.

The desire for some more speedy method of publishing, and distributing the transactions of the American Medical Association than has been attained through an annual volume, led the Association, at its last meeting, to decide to journalize its proceedings, and publish them hereafter in the form of a Medical Journal, provided the members of the Association and the profession at large will insure its pecuniary success. This may be secured by the prompt payment of the annual dues of members of the Association, and of subscriptions by those not members. The journal is to be under the control of the Association, through its trustees, and to be issued and supplied in place of its annual volume of transactions. It will be known as The Journal of the American Medical Association. The trustees will, if they receive a sufficient number of subscriptions, feel justified in recommending to the Association the propriety of the change, and the adoption of the following plan: To issue a weekly journal, each number to contain thirty-two double-column pages of reading matter, and which shall embrace the following departments:

1. Original Papers, Addresses, Reports, and so forth. This will include all the papers read before the Association, and its sections, which are referred for publication.
2. Leading Editorials on the Scientific, Educational, Social, Sanitary, Ethical and other interests of the profession.
3. Editorial summary of progress in the several departments of medicine, and the collateral sciences, including reviews of new books.
4. Notices of the proceedings of Medical and Scientific Societies throughout the country.
5. Correspondence, Domestic and Foreign.
6. American Medical Association Intelligence.
7. Miscellaneous Medical News.

Through the medium of such a journal, the proceedings and papers of the Association will reach the members much earlier each year, and by its frequent visits, and its large amount of additional matter of value, it will maintain a much more active interest on the part of the entire membership; while its notices of the proceedings of the several State societies will tend to bring those societies into closer relationship with the national society, and thereby greatly aid in the extension and usefulness of the social organizations of the whole profession.

The intention is to place the journal under as efficient editorial supervision as a fair salary will command. All members of the Association who pay the annual dues ($5.00) promptly, will by that act be subscribers, and will receive the journal as it shall be issued. To those not members of the Association the subscription price will be $5.00 in advance. To enable the Association to decide at its next meeting whether to make the proposed change in its publications or not, you are earnestly requested to give your pledge of support by signing the enclosed printed card, and returning it without delay to the undersigned. If the pledges of support are sufficient to justify the final adoption of the plan, the first number will probably be issued on the first of July, 1883.

N. S. Davis, M. D.,
President of Board of Trustees,
65 Randolph St., Chicago, Ill.

Editor's Book Table.

Griesinger on Mental Pathology and Therapeutics.*

The author of this work has long been the leader of the modern German school of medical psychology. Hence his matured thought will interest all desirous of keeping in mind the progress of this branch of medical science. Published as it is in connection with a series of medical works distributed among general practitioners, it will do excellent service by interesting these gentlemen in a department of medicine which they have too long neglected. The author has done very much to popularize in the profession of Germany the purely medical idea of mental disease. In addition to his writings he regularly delivered lectures and gave clinics upon this subject at Tübingen. He hopes that such instruction may become universal in the medical schools. With such lectures and such clinics the proper knowledge of psychology will spread in the profession so that in the future such a sentiment will exist among people and profession that mere asylum managers can no longer call themselves medical psychologists, and fantastical bombast, sounding of the spiritual world, will yield to temperate clear medical observation.

The work is divided into five parts, treating successively of general considerations of the cause and mode of origin of mental disease, of the forms of mental disease, of the pathological anatomy of mental disease, and its prognosis and treatment.

It is quite a common impression among non-experts that if a person be insane he is unlikely to remember what occurs during his insane periods. But our author says that the insane generally remember what occurs to them during their disease and can often relate with remarkable truth and precision the most trifling incidents in the outer world and the minute details of their motives and sentiments during the disease. They can often interpret every glance, word and change of expression in their visitor. This kind of intelligence is especially observable in those who have recovered from melancholia and moderate states of mania less frequently after monomania, of which the patient generally retains confused ideas. From this it follows that just, mild treatment of the insane is a wise precaution on the part of all having intercourse with them.

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*Mental Pathology and Therapeutics. By W. Griesinger, M. D. Translated from the second German edition, by Dr. C. L. Robertson and Dr. James Rutherford. New York: Wm. Wood & Co. 1882. Cloth, pp. 375. Sold only by subscription to Wood's Medical Library.

He regards it very difficult to say to what extent if at all criminal impulses of the insane are irresistible. He says: "Few if any acts of the insane have the character of forced, purely automatic movement; in mania also, according to the testimony of individuals who have recovered, many of the wild desires could often be restrained; the criminal deeds of the insane are not generally instinctive. The loss of free will or responsibility therefore depends seldom upon the fact of inability to have abstained from the act committed or that the normal conditions of volition have been completely suspended." Thus according to this authority, insanity does not of necessity make one irresponsible. This is an important point in connection with the present and past discussion of the Guiteau case. Nor do the revelations of the microscope alter the aspect of the matter. Plenty of brains are daily examined, with disease, both of nerve cylinders and blood vessels of the cerebrum, without any taint of insanity.

From lack of space we pass the body of the work without quotation. But we must state that the whole of it is even more attractive in nature and more pleasingly treated than that from which we have quoted. Occasionally there is an obscure sentence, but not so frequently as to interfere with an easy grasping of the author's meaning. Prominent among the questions relating to treatment is the topic of insane asylums. Here we find the matter very clearly set forth. We quote only briefly.

The picture of the insane asylums of the early part of even this century presented an aspect which rendered it fitting that over the entrance be inscribed, "Let those who enter here cast all hope behind." As reform began in Germany the conviction gained ground that the first condition of success in treatment was the separation of the curable from the incurable insane. The ill effects upon recent cases of certain forms of incurables was seen to be ruinous. Then the space needed for the curable was filled by the incurable and the latter deprived of the chances for treatment at the time when treatment was of most avail. The abandonment of separate hospitals for these two classes was not on account of any deficiencies in the system, but from the pressure of theoretical considerations and external motives. While the curable and incurable insane are not mingled indiscriminately as in former years the principle of division founded upon incurability, has been abandoned in Germany.

He apparently leans to the erection of relatively connected asylums in which the incurable occupy one set of buildings and the curable another set, all connected in administration, etc., as a matter of economy. In this case the buildings for the incurables should be made at least three times larger than those for the curables. Nor should one physician have charge of more than one hundred curables. In any event he thinks the state should exercise only over a certain portion of the insane a special guardianship. Thus the harmless incurables should be cared for by the families and towns, and the state should see that they do care for them. The state asylums for incurables ought only to be used for the poor. As to the curable insane the state should see that they are properly treated. He thinks that the pauper insane should be thus cared for by state institutions, the well-to-do having private insane hospitals under state supervision. At the present, he says, it is not practicable to make all state asylums pauper institutions.

The greatest number of insane criminals would be better left in the prison than placed in even an asylum devoted to the criminal insane.

Lastly, as to the superintendent, he says: "At the head of the personnel of the lunatic asylum, subject to the directing authorities of the state, stands the superintending physician, upon whose character as a man and as a scholar, the pervading influence in the institution depends. Side by side with the grand essential of a thorough acquaintance with medicine (and in the institutions devoted specially to the cure of insanity, a particular knowledge of nervous pathology), there is required in the head physician, and justly expected of him, a rare combination of moral excellencies—benevolence, great patience, self-command, freedom from prejudice, a knowledge of men gained by actual experience with the world, conversational powers, a decided liking for his own vocation."

While the actual workings of the insane colony at Gheel, in Belgium, a colony that has a history reaching back several hundreds of years, does not altogether meet his approval, he thinks that "the day will come when the means and method will be discovered by which the problem of a lunatic colony, and thus the care and treatment of all classes of the insane will be finally solved."

Kelsey on Diseases of the Rectum and Anus.*

The writer of this volume tells us that he has endeavored to condense as much practical information as was possible within the space at his disposal. This condensation was the more desirable as in this branch great advances have been made during recent years. Thus the pathology of malignant disease has been re-written, the intimate relationship of polypoid growths to epithelial cancer worked out with the microscope, the operation on cancerous growths of the lower portion of the rectum has again been made a proper surgical procedure with its indications clearly defined. The improvements in abdominal surgery have enabled surgical treatment to remove cancer of the upper part of the rectum and sigmoid flexure through the abdominal walls. Farther, better methods have been devised for treating benign stricture, malignant stricture, hæmorrhoids, etc. The work before us fairly states the views now held and practiced in all these and many other important questions. It exhibits in a compact form the results of researches and observations made in many countries by many workers.

An entire chapter of thirty pages is devoted to the exposition of the latest views upon the anatomy and physiology of the rectum. It may surprise some who have paid little attention to the subject to be told that concerning the existence and functions of the so-called third sphincter muscle of the rectum there is still great diversity of opinion. This muscle was first described by Nelaton some fifty years ago. But, as Van Buren says, thus far anatomists and physiologists have been unsuccessful in locating this muscle with certainty and in ascribing to it a certain function. Still the author adopts Foster's views as not only the latest but the most complete and probably correct. Thus the process of defecation is as follows: "The fæces in their passage through the colon are lodged in the saculi during the pauses between the peristaltic waves. Arrived at the sigmoid flexure, they are supported by the bladder and the sacrum, so that they do not press upon the sphincter ani. Defecation is a composite act, being the result of an effort of the will, and yet carried out by means of an involuntary mechanism. The voluntary effort is composed of two factors—a pressure effect produced by the contraction of the abdominal muscles and a relaxation of the sphincter ani muscle. By the pressure of the abdominal muscles the contents of the descending colon are driven onward into the rectum, but the sigmoid flexure itself is shielded by its situation from the direct force of this pressure and a body introduced per anum into the empty rectum is not affected by even forcible contraction of the abdominal muscles. The sphincter muscle guarding the anus is habitually in a state of contraction, capable of being increased or diminished by a stimulus applied either internally or externally to the anus. This tonic contraction is due in part, at least, to the action of a nervous centre situated in the lumbar portion of the spinal cord. By the action of the will, by emotions, or other nervous events, the lumbar sphincter centre may be inhibited, and thus the sphincter itself relaxed; or stimulated, and thus the sphincter tightened. This relaxation is the second of the voluntary elements in the act of defecation. By these two alone the contents of the descending colon might be pressed onwards into the rectum and out at the anus; but since the sigmoid flexure itself is subject to neither of these influences, such a mode of defecation would always end in leaving it full; and, therefore, there is superadded to these two voluntary elements an entirely involuntary increase in the peristaltic action of the sigmoid flexure itself. The order of events is the reverse of what we have stated. The sigmoid flexure and large intestine become more and more full, while stronger and stronger peristalsis is excited in their walls. By this means the fæces are driven against the sphincter. Though a voluntary act, or sometimes, at least, a simple reflex action, the lumbar centre is inhibited and the sphincter relaxed. At the same time the contraction of the abdominal muscles causes firm pressure on the descending colon, and the contents of the rectum are ejected."

From this it appears that there is no call for the existence of a third sphincter muscle to the rectum. What has been thus known is really nothing more than a band of circular fibres of the rectum.

The account given of the best methods for examining for rectal disease, the descriptions of the instruments called for in making these examinations, the descriptions of the several affections and the means afforded for their relief, are all presented in the briefest space and most pleasing manner. We shall expect that the reading of this work will incite very many practitioners to a more scientific study and treatment of this class of cases.

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*DISEASES OF THE RECTUM AND ANUS. By Charles B. Kelsey, M. D. New York: William Wood & Co. 1882. Cloth; pp. 299. Sold only by subscription to Wood's Library of Medical Authors.

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Ranney on Practical Medical Anatomy.*

The author tells us that he has not tried to write a treatise upon descriptive anatomy, but rather a collection of hints which might serve as a guide to the study of the practical bearings of the different portions of the head and trunk upon the field of general medicine. In short he has tried to exhibit some of the practical uses of the anatomy of these parts, in the physician's and surgeon's daily work. Concerning the importance of this object there can be no question. Both medical students and practitioners soon forget or learn with difficulty and forget with ease most details of anatomy, mainly because their studies of it were conducted with little reference to or connection with its practical relations and actual uses. "Holden's Landmarks" and other similar works have been widely popular because of their helpfulness in practical bearings.

As illustrations of the nature of this book we give the following.

"We find that the orifice of the ear nearly corresponds, in the normal skull, to the level of the floor of the cerebrum; so that the height of the skull above this point indicates, in general, the relative amount of brain possessed by the individual. If a string be made to pass from one external meatus to the other over any part of the calvarium the development of that portion of the brain in proportion to other portions can be approximately determined.

"Again, the bony skull cap is not often symmetrically developed upon its two lateral halves. The frequency of this lack of symmetry may be appreciated by examining the impressions taken by any of our prominent hatters. No two skulls have identical measurements or contour, since although faces are never alike, mechanical causes may further alter the shape of the head. This is evidenced to a marked degree in certain Indian tribes, where the heads of the young are mechanically compressed."

"The thickness of the skull cap seems to be modified somewhat by the exposure of the head to the effect of the sun, as it is usually very thick in the Egyptian, and in other races where the head is generally uncovered; while it is liable to be thin and soft in the Persian race and in other races where the head is covered with a turban from infancy."

"That the upper extremity of the fissure of Rolando in man was placed at a point forty millimeters behind the coronal suture." "The head as has been observed, consists of distinct portions, the cranium and face; the one intended to contain the brain, the other to enclose the organs of sight, smell and taste. The more the organs of smell and taste are developed, the greater is the size of the face and the greater its relative proportion to that of the cranium. On the contrary, the larger the brain, the greater must be the capacity of the skull, and the greater its proportion to the face. On this principle a large cranium and a small face indicate a large brain with restricted development of the sense of smell and taste; but a small cranium and a large face mark an opposite conformation."

The chapter on the human face in health and disease has already appeared in the *New York Medical Journal*, but it loses none of its interest and importance. Taken with its illustrations, it is full of practical suggestions. The appearances of the face in pneumonia,emphysema,etc.,will be recalled by those who have once seen them. But to others these descriptions will serve to render them clear when first observed. The value of the face as an interpreter of morbid states is less appreciated than it deserves. We have not space farther to discuss the contents of this volume. It presents nothing new. Even the method is an old one. But both the method and the subjects are so presented as to meet our hearty approval. We are sure that great benefit will accrue to all who may read this charmingly written volume.

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The Second Volume of the International Encyclopædia of Surgery.*

In outward appearance and in size this is the exact counterpart of the first volume. Broad margins, large pages, first-class paper, and unexceptional press work have placed before us a beautiful book. The eighteen separate chapters are contributed by as many authors. Of these three are Englishmen and one a Canadian; all the rest are Americans. Six, or one-third of the articles, are written by Philadelphia surgeons. These details as to the authorship of the articles are of interest in estimating the international character of the work. It will at once appear that this volume is clearly American and largely from Philadelphia. This is nothing against the value of the work. Indeed, in the eyes of very many, it will be a distinct recommendation. But it shows that its international character is very slight. The subjects considered are contusions, wounds, the antiseptic method of treating wounds, poisoned wounds, sabre, bayonet, arrow and gun-shot wounds, the effects of heat and cold, abscesses, ulcers, gangrene and gangrenous diseases, gonorrhœa, chancroid, syphilis, venereal warts, pseudo-venereal affections, venereal diseases in the lower animals, surgical diseases of the skin and its appendages, diseases of the cellular tissue, and diseases and injuries of the bursæ.

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*PRACTICAL MEDICAL ANATOMY, A GUIDE TO THE Physician in the Study of the Relations of the Viscera to Each Other in Health and Disease and in the Diagnosis of the Medical and Surgical Conditions of the Anatomical Structures of the Head and Trunk. By Ambrose L. Ranney, A. M., M. D. New York. 1882. William Wood & Co. Cloth pp. 339. Sold only by Subscription to Wood's Medical Library, at $15, for twelve similar volumes issued monthly.

*THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A Systematic Treatise on the Theory and Practice of Surgery, by Authors of Various Nations. Edited by John Ashhurst, Jr., M. D. Illustrated by chromo-lithographs and wood cuts. In six volumes. Vol. ii. New York: William Wood & Co. 1882. Cloth, pp. 754. Sold only by subscription, $5 per volume.

From this list of surgical affections it will at once appear that the venereal diseases are the most important. So it is that they are given greater space and dealt with in more detail. Eleven chromo-lithographs and one hundred and forty wood cuts serve to illustrate the text. These are better executed than the illustrations of the first volume, but very much more is needed to bring them up to professional expectation. Respecting the several articles, we may say in general that they are prepared with the results we should expect from the well-known character and abilities of the several writers. As a whole the several subjects are satisfactorily presented, both as to style and matter. There can be no question as to the value to any practitioner of this work. Being the latest, it has gathered up with judgment and thoroughness the latest contributions to the several subjects discussed as published in the medical journals and monographs, little accessible to the general practitioner or even the general surgeon. We shall take pleasure in giving illustrative extracts of portions having peculiar interest to the general medical reader. No one can read this work without great and substantial benefit. It matters not what special portion of medicine or surgery he is interested in, he will find plenty of material for thought. The advocates of Listerism will scarcely think that twenty pages are sufficient to expound properly their favorite doctrine and practice. But the preparation of such a work could hardly please all the devotees of special doctrines and modes of practice. The monograph alone will suffice for them. The separate articles of the volume before us are the next best substitute for such works.

Three collaborators who had engaged to prepare articles for this volume have died. Only one, Dr. J. T. Hodgen, had prepared his article. The places of Otis, the distinguished author of the Surgical History of the War, and Dr. J. Lenox Hodge were filled by Dr. P. S. Connor, of Cincinnati, O., and Dr. Nancrede, of Philadelphia.

This is a mournful illustration of the frightful mortality which during the past year or two has thinned the ranks of the distinguished men in the medical profession.

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Buckley on the Existence of Cerebral Hyperæmia.*

This little work is essentially a review of some views of Dr. W. A. Hammond, that have in various ways been placed before the profession and in some manner obtained great credence. Dr. C. E. Buckley is convinced that these views have no basis in fact, and by the work before us tries to give his reason for the faith that is in him. He first calls attention to the strange medley of positive contradictions, to be found between the several chapters or separate parts of the same chapter. Thus Hammond positively states that strychnia and quinine increase the amount of blood in the brain, and a few pages farther on he recommends quinine and strychnia for the relief of cerebral hyperæmia.

Again, while Dr. Hammond claims to have discovered a new condition deserving a distinctive name, there is not a single pathological fact recorded in its pages to uphold the position assumed. He has a chapter upon the morbid anatomy of this affection, while all the cases recorded in his book recovered. We have not space to farther quote this author. He concludes that, "If extravagant unreason in medicine can go any farther I am unaware of the fact and incapable of comprehending it. And if from the evidence such as adduced the reader can convince himself that such a disease as 'cerebral hyperæmia,' in the sense referred to, has any existence outside the imagination of Dr. Hammond his discernment and reasoning faculties are of an order to which I am a stranger." In our notice of Dr. Hammond's monograph several years since, we ventured to question the soundness of his views. As time has passed on we are the more convinced that they are entirely without reasonable basis. Farther, he does not in his writings as to treatment stand by them, but as Dr. Buckley says, his practice contradicts his theory. To our mind he has left out the most important, elements of the interpretation of his cases, viz., the influence of the brain cells, etc., in producing the symptoms. The little book before us will be of interest to all lovers of truth. The questions at issue are such as interest all medical practitioners and are involved in the treatment of very many cases.

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*CEREBRAL HYPERÆMIA; Does it Exist? A consideration of some views of Dr. William A. Hammond. By C. F. Buckley, B. A., M. D. New York: G. P. Putnam's Sons. 1882. Paper, pp. 129. Price, $1. For sale by John MacFarlane, Detroit.

Beard on the Salem Witchcraft Excitement of 1692.*

This little work apparently was written to show that the hanging of Guiteau was like the destruction of the Salem victim of witchcraft. He has it firmly in his mind that Guiteau was unjustly hung, and here he adduces some of his evidence. We have read the entire book through but are unable to find in it even food for thought. It is the very worst of all his books, full of meaningless platitudes. Dr. Beard will undoubtedly say that we do not belong to the "expert" class on this topic, and therefore our judgment is worthless. There is some truth in this, yet such judgment as we have we try to use to the best advantage. Candidly, we are unable to see the slightest resemblance between the two events that are here placed in juxta position. Dr. Beard has not added one idea to the story of the Salem witchcraft as we first read it in our boyhood. In this we are much disappointed. Nor has he added to our knowledge of the Guiteau case. We think this exhibition of himself is in no sense creditable. Words, words, but no ideas. Still to such as are interested in the action of Dr. Beard's mind as a psychological study, the book is worth reading. For any other purpose it is valueless. This is just the judgment he passes upon the writings of those who differ from him in the matter of the Guiteau case.

Index-Catalogue of the Library of the Surgeon General's Office, U. S. A., Volume III—Cholecyanin-Dzondi.*

The third volume of this magnificent work lies before us. It includes 9,043 author's titles, representing 10,040 volumes and 7,380 pamphlets. It also includes 8,572 subject titles of separate books and pamphlets, and 28,846 titles of articles in periodicals. Besides, under the heading of "Collection of Portraits," are catalogued 4,335 medical portraits. We have also a list of medical periodicals, issued since the last volume of the index was published—or otherwise added to the library. The general arrangement and method is identical with that of the former volumes. The extent of the collection of works here catalogued is shown by the list of articles and books on certain subjects. Thus on diphtheria we have twenty-eight double column pages of the finest type. It cannot but be that an examination of this list would cause him to hesitate to write an article who has nothing to say. To the student it is simply appalling. We have no doubt that much of it is simply trash, but none can tell but that which we propose to skip, contains the very facts we are seeking. Hence, any exhaustive study must cover at least all the works here catalogued. Located as they are, it is possible for any student to have access to them under conditions that render them of the utmost value to him. We shall hope that Congress will make the appropriation needful to push forward to rapid completion of this unique catalogue.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Gynæcology.

DIAGNOSIS OF OVARIAN CYSTS BY MEANS OF EXAMINATION OF THE CONTENTS.—Henry J. Garrigues, A. M., M. D. (*American Journal of Obstetrics*, Jan., April, and July,) in a very extended article under the above head advocates microscopical examination of the contents of abdominal cysts and collections of fluid, with a view to correct diagnosis. His conclusions are given *in extenso*.

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*THE PSYCHOLOGY OF THE SALEM WITCHCRAFT EXCITEMENT OF 1692, and its Practical Application to Our Own Time. By George M. Beard, A. M., M. D. New York: G. P. Putnam's Sons. 1882. Cloth, pp. 112.

*INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S Office of the United States Army. Authors and Subjects. Vol. III. Washington, D. C.: Government Printing Office. 1882. Cloth; pp. 1,040.

1. The examination of fluid from abdominal tumors affords a very valuable aid to diagnosis. By studying the physical, chemical, and microscopical characters it is almost always possible to diagnosticate ovarian cysts even without knowing anything about the patient and of course still more so when the result is combined with the other features of the case.

2. The physical characters give myxoid ovarian fluid in most cases a certain appearance by which it is recognized at once.

3. The viscidity is the most important physical character when present, but may be wanting in ovarian and present in the non-ovarian fluid.

4. The higher specific gravity may be of some use in distinguishing ovarian fluid from that of a cyst of the broad ligament. In the differential diagnosis between ovarian cysts and ascites it has only some value in extreme cases.

5. The color, limpidity, odor and reaction are not characteristic.

6. No chemical product peculiar to ovarian fluid has been found.

7. Coagulation. As a rule ovarian fluid does not coagulate spontaneously and when it does the coagulation takes place slowly. Ascites fluid as a rule coagulates spontaneously and slowly forms a small coagulum. The fluid of uterine fibro-cysts does sometimes coagulate and then in a mass and immediately (see below). In a case of sarcomatous tumor (case xxiv) a large clot was formed by exposure of the fluid to the air.

8. Ovarian fluid cogulates as a rule to a great extent or entirely by heat.

In two cases out of three cysts of the broad ligament this coagulation did not take place. The third was not tested in this respect.

9. Scherer's test for paralbumen. In most cases the coagulum formed by boiling alone or with a drop of acetic acid to counterbalance alkalinity was more or less dissolved by boiling with the same reagent in excess. But the test is not reliable; some ovarian fluids were little or not at all changed, and in some tapped cases which decidedly were not cystic but ascitic, complete redissolution of the coagulum took place.

10. In ovarian fluid the histological elements are as a rule preserved for a more or less long time (weeks or months). Not so with the fluid from ascites and from cysts of the broad ligament. When present this character has diagnostic value, its absence none.

11. The microscopical examination is of much greater importance than the physical and chemical (inclusive of spectroscopy.)

12. It is only by studying the cyst walls and especially by tracing the formations of cysts back to their very beginning that we can come to understand the fluid they contain.

13. Fluids ought to be examined as fresh as possible; for though ovarian fluid often may be recognized after months, sometimes this is not the case, and other fluids are often changed very soon, larger bodies being broken down to granules or altogether dissolved and movements arrested.

14. The bodies seen in ovarian fluid are red blood-corpuscles, epithelial cells, nuclei, granules, pigment, finely granular globular bodies like lymph-corpuscles or colorless blood-corpuscles, pus-corpuscles, spindle-shaped cells, colloid masses, cholesterine and indican.

15. The epithelial cells are columnar.

16. In one case were found corpuscles with ameboid movements.

17. Bennett's large corpuscles are epithelial cells in fatty degeneration.

Another kind which I call the dark variety of Bennett's corpuscles are epithelial cells filled with pigment.

18. Bennett's small corpuscle, Drysdale's "granular ovarian cell," is no cell, but the nucleus of an epithelial cell in a state of fatty degeneration.

19. The small bodies with dark granules so common in ovarian fluid are likewise nuclei of epithelial cells.

20. There is no pathognomonic morphological element in ovarian fluid.

21. The most important element in regard to diagnosis are columar epithelial cells seen in side view. Their presence excludes all other tumors than those of the ovary, Fallopian tube and broad ligament (perhaps with the exception of a cyst of the pancreas).

22. Bennett's corpuscles, Drysdale's corpuscles, nuclei with dark granules and cholesterine have no diagnostic value.

23. Cysts of the broad ligament cannot be distinguished from those of the ovary.

24. John Hughes Bennett, of London, was the first who described and delineated both the large and the small granular bodies commonly found in ovarian cysts and noticed that the latter have no nucleus, not even after the addition of acetic acid.

25. Eichwald was the first to mention the presence of colloid globules, horn-cells, cholesterine and pigment.

26. Waldeyer was the first who pointed out the presence and diagnostic value of the columnar cells.

27. If a fluid contains hair or epidermal scales, or is composed of melted fat, it is dermoid, but nothing shows that it is ovarian. Sometimes dermoid ovarian cysts contain a fluid like that of myxoid cysts. Sometimes both these classes of characters are combined, and then the diagnosis of dermoid ovarian cyst can be made.

28. A fluid as clear as water and containing very few histological elements and without nuclei with shining granules (Drysdale's "ovarian cells") may be found in ovarian cysts, both true monocysts (hydrops folliculi) and multilocular cysts with ciliated epithelium.

29. Neither the quantity, nor the size, nor the shape, nor the arrangement of the elements found in cystic fluid enables us to tell that the cyst is sarcomatous or carcinomatous, but only that it is ovarian.

30 Cysts of the broad ligament are much rarer than ovarian cysts.

31. Both ovarian cysts and cysts of the broad ligament may have serous or colloid contents, but the latter is common in ovarian cysts, rare in extraovarian cysts, while water fluid is common in extraovarian, rare in ovarian cysts.

32. Uterine fibro-cysts are very rare. All cases in which a sufficiently large quantity of fluid was withdrawn and coagulated spontaneously, promptly and completely, have proved to be fibro-cysts of the uterus. But coagulation only takes place in the fluid from a minority of uterine fibro-cysts.

33. Atler's fibre-cell is not always found in uterine fibro-cysts, and may be present in ovarian cysts.

34. None of the other microscopical elements, more or less changed epithelial .cells, found in uterine cysts, have any diagnostic value.

35. Columnar epithelial cells are never found in uterine cysts.

36. Amniotic fluid is entirely different from ovarian. It contains large, flat epidermal scales full of fat and free fat masses.

37. It is doubtful if the fluid of dropsy of the fallopian tube can be distinguished from that of ovarian or uterine cysts, or those of the broad ligament. But tumors of this kind, large enough to call for surgical interference, are exceedingly rare, and can be removed so that no harm would arise from an error in diagnosis.

38. A fluid like that of lymphectatic uterine tumors, which coagulates promptly in a mass on exposure to air, has been found in a tumor of the same kind developed in the round ligament.

39. Cysts of the abdominal wall may occasionally become so large as to simulate ovarian cysts. The fluid differs from that of ovarian cysts by being limpid, serous, lemon-colored, and devoid of epithelial cells or their derivatives.

40. The fluid from urachus cysts differs from ovarian fluid by containing flat epithelial cells.

41. Cases of spina bifida have formed a tumor in the pelvis which had the appearance of an ovarian cyst. The fluid contained no albumen, nor any histological elements, and might have been recognized as non-ovarian.

42. A single hooklet or the smallest piece of cuticula is pathognomic for echinococci, but they are not always found in the fluid coming from these tumors. It is without albumen, or contains only traces thereof, but this may also be the case with ovarian cysts. It contains succinic acid, leucin, grape sugar, inosit, none of which have ever been found in ovarian cysts. Uric acid and urea have been found in both kinds. Paralbumen has never been found in echinococci. Thus the differential diagnosis can be made by chemical and microscopical examination.

43. Cysts of the mesentery can be distinguished from ovarian by containing serous fluid without epithelial cells.

44. Cysts of the spleen are of so rare occurrence that only a single one is recorded. It might have been recognized as non-ovarian by the fluid, which, although it was thick, viscid, yellowish-brown, full of albumen, leucocytes and cholesterine, did not contain any epithelial cells nor their derivatives.

45. Cysts of the liver, when we except echinococci, are likewise very rare. The fluid differs from that of ovarian cysts by the absence of the characteristic elements and probably of paralbumen, and sometimes by containing bile or liver-cells.

46. Hydronephrosis may sometimes be differentiated from an ovarian cyst by the presence in the fluid of a large quantity of urea, flat epithelial cells, and by its acid reaction. A small amount of urea may be found

in both. Likewise has pus albumen been found in hydronephrosis. When no kind of epithelial cells are found and the chemical composition is not characteristic, the diagnosis may be impossible.

47. Renal cysts of large size are rare. Their contents may be very like those of ovarian cysts, and may especially be full of nuclei with shining granules, and form a coagulum by heat which is redissolved by boiling acetic acid in excess. The microscopical appearance is not characteristic. Sometimes urea in large proportions and uric acid are present which settles the differential diagnosis, but at other times there is neither. Sometimes flat epithelial cells are found, at other times the characteristic short columnar or cubic epithelial cells as found in the urine of patients suffering from catarrhal nephritis. The long columnar epithelial cells found in ovarian cysts are never found in renal cysts. By these different properties it will probably always be possible to differentiate them.

48. *A cyst of the pancreas*, built exactly like an ovarian cyst, contained a fluid differing from ovarian by the acid reaction, the uniform, small size of the nuclei, and the presence of peculiar thready bodies.

49. The fluid from a large *cyst of the omentum* differed from ovarian by being serous, not viscid, although it was dark; by spontaneous formation of small coagula and by containing flat interstitial cells.

50. *Ascites* can sometimes be recognized by inspection. The specific gravity cannot be used for a diagnosis. As a rule some spontaneous coagulation takes place, but sometimes not. On the other hand ovarian fluid may coagulate spontaneously. Scherer's test for paralbumen has no value for differential diagnosis. It can always be made by the microscope showing flat endothelium and amœboid lymph-corpuscles.

51. Ascites arising from cancer of the peritoneum differs perhaps from simple ascites by containing large round or pear-shaped endothelial cells with large nucleus, either isolated or in groups. It differs from ovarian fluid by the same characteristics as simple ascites.

52. *Ascitic fluid mixed with ovarian* is full of endothelial cells and flakes which undergo fatty degeneration, ameboid lymphoid bodies are found together with columnar epithelial cells. It did not coagulate spontaneously in my cases. Even when there is a long rent in a cyst, the fluid inside and outside of the cyst may be different.

53. *Encysted peritoneal collections* differ commonly by their mere aspect, which is like ascitic fluids, from ovarian. The fluid is never viscid. Bodies like Drysdale's ovarian cell have indeed been found in them, but never columnar epithelial cells. If purulent, these fluids can perhaps not be distinguished from that of an ovarian cyst which has been suppurating for some time.

54. The danger connected with performing operations for supposed ovarian cysts which turn out to be other diseases is much greater than that arising from tapping with proper precautions.

55. The instruments used in operating ought to be immersed in a five per cent. carbolic solution for at least five minutes. The abdomen of the patient should be washed with soap and water and then with carbolized water. The danger of causing hemorrhage is much lessened by using a thin instrument and by pressing it into the tumor slowly. Aspiration is preferable. The compartment of a cyst which has been opened should be entirely emptied, except if it is a uterine fibro-cyst.

Aspiration should never be performed in the office or out-door departments, and after aspiration the patient should be kept in bed four days. The possibly arising indication for ovariotomy within twenty-four hours should always be kept in mind.

Laceration of the Cervix Uteri.—Ely Van De Warker, M. D. (*Amer. Jour. of Obstet.*, Jan., '82), thus summarizes the conditions that act as factors in the production of lacerations of the cervix uteri:

A. Pathological changes in the cervix may lead to lacerations during parturition from: (1) progressive degeneration of the tissues due to repeated labors; (2) cervical inflammation and hyperplasia; (3) degeneration of ovula Nabothii, or cysts or follicles degenerated into cavities; (4) softening due to chronic catarrh and inflammation; (5) presence of cicatricial tissue; (6) edema of vaginal portion occurring at first stage; (7) edema due to heart disease.

B. Deviations from the normal in conditions of the cervix antecedent to the labor, due to general conditions such as follow arrested or impaired gestation; also, softening of the cervix due to many causes.

C. Deviations from the normal in the mechanism of labor. (1) Want of balance between radial expansion of cervical can and elongation; (2) untimely expulsion with reference to cervical expansion; (3) excessive amplitude of pelvic strait, or (4) a small fœtus permits too sudden expulsion; (5) adherent membranes; (6) sudden rupture of membranes with rapid expulsion; (7) administration of ergot.

D. All the foregoing conditions being normal, the cervix may be endangered from defect in the action of the uterus. (1) Irregularity in action of the uterus (uterine polarity); (2) disturbance in direction of descent of fœtal head from uterine obliquity; (3) harmony of uterine action disturbed by mental emotion; (4) the hysterical state.

E. Mechanical causes: (1) obstetrical operations; (2) vesical calculi; (3) long-continued distention by arrest of the fœtal head at the perineum.

Obstetrics.

ANTISEPTIC MIDWIFERY.—Robert Barnes, M. D., M. R. C. P., has an article under the above named caption in the Jan. No. of the *American Journal of Obstetrics*. He says: So far as antiseptic appliances are concerned they can be regarded strictly only as subsidiary means in the carrying out of the great principle that lies at the bottom of all good obstetric practice, viz., to screen the lying-in woman from those persons and other noxious influences which threaten her from within and without. What then is septicemia in the puerpera? for the term antisepsis implies sepsis. At best "septicemia" is indefinite. The old word "toxemia" is perhaps a better word, because while equally indefinite it is better comprehended. Then septicemia or toxemia signifies that a poison has entered the blood from some source and the object of antiseptic treatment is to prevent the access of such poison to the patient and becomes one of the most interesting problems in midwifery.

What are the factors which enter into this problem?

1. There is the blood of the pregnant woman modified by the processes of growth of the uterus and foetus. These modifications are excesses of fibrin, diminished proportion of red globules and increased proportion of water and of white globules.

These altered conditions of the blood lead to toxemia by rendering the system more liable to contract poison and less able to throw it off.

If there has been much hemorrhage during or after labor the blood has become more highly charged with fibrin. The excess of colloid materials increases centripetal osmosis.

2. There is the fall of nervous and vascular tension, causing a change in the dynamics of circulation.

3. There is a period of comparative rest following labor, which is a period of preparation for the process of disintegration, which is to follow. This period is about forty-eight hours in length.

4. At the end of the second day the process of resorption in the uterus has begun. A further blood change has begun which normally should result in a return to the normal blood state before pregnancy. Absorption revives. The lymphatic vessels and venules come into active function, but if the lymphatic system and liver, especially, fail to modify the waste material brought to them and fit it to enter into circulation, then the blood becomes contaminated. Hence one form of toxemia.

5. But even assuming that the waste material enters the blood properly prepared unless it be got rid of *pari passu* there will be an accumulation of waste material in the system constituting another form of toxemia. Hence there must be easily working excretory organs.

6. Now it is obvious that both resorption and conversion may be defective. Hence a complex toxemia derived entirely from internal sources.

7. The traumatism that accompanies parturition plays an important part in the induction of puerperal toxemia. The various lacerations and bruisings of the cervix uteri and vaginal mucous membrane and that portion of the uterus from which the placenta has been disrupted are important factors in the absorption of poisons that may be deposited or may be generated on the maternal mucous surfaces. Probably the placental site is the most important of these factors.

8. Decomposing blood and lochial discharges are the sources of the poisons that find entrance to the blood through the traumatisms of the maternal parts.

9. Other forms of poison as that of the cadaver and others of the same class may be conveyed to the genitals by the attendants.

10. Zymotic poisons as those of typhoid, variola, scarlatina, etc., act with special virulence in the blood of the puerpera.

11. Emotional disturbances play an important part in secretion and excretion.

To protect the puerperal patient from all these dangers is the first great object to be kept in view, and if by any means an invasion takes place, to counteract their noxious influences is the second great object, and the carrying out of this programme is antiseptic midwifery in its broad sense.

Antiseptic treatment should be begun at the commencement of labor. At the British Lying-in Hospital the patients are delivered under the carbolic spray. After delivery secure constant and firm contraction of the uterus. Then give an aperient on the second day. Wash out the uterus with a solution of carbolic acid, one in fifty, on the second day. While taking care to exclude foul stuff from the genitals, give the patient a generous supply of pure air, and lastly give the patient a good supply of healthful nutriment after the second day.

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Practical Medicine.

TREATMENT OF PNEUMONIC FEVER (ACUTE LOBAR PNEUMONIA) BY THE EMPLOYMENT OF THE WET SHEET.—Austin Flint, M. D., (*Gaillard's Medical Journal*, March, 1881,) says: The treatment consisted in wrapping the wet sheet around the patient when the temperature arose above 103° F., and continuing the application until the temperature in the mouth fell below 102° F., repeating the application when the high temperature again returned.

In case 1st the patient entered on the 3rd day of his sickness. On the 2nd day after his entrance to the hospital the patient had the wet sheet three times—the first time remaining in the sheet 2 hours and 45 minutes; the second time he remained 1 hour and 30 minutes, and the third time he was wrapped in the sheet 1 hour and 10 minutes. On the 3rd day the sheet was employed once for 1 hour. On the 4th day the sheet was not employed. On the 5th day the sheet was employed once for an hour. There was complete defervescence on the 6th day after entrance, and the patient was up and dressed five days after defervescence.

In case 2nd reported the patient entered the hospital on the 7th day of the attack, having had no medical treatment prior to her entrance. The wet sheet was employed on the 2nd day after admission and continued for six hours. Complete defervescence took place on the third day after entrance. Recovery followed without any drawbacks.

In the third case the patient entered hospital on the fifth day of the attack. On this day the wet sheet was employed and continued for ten hours. On the 2nd day after entrance the wet sheet was employed and continued five hours. Defervescence occurred on this day—or on the 7th day of the sickness.

Dr. Flint in his remarks says that these cases show, so far as they go, that in cases like those selected this treatment does not hurt, and thus the cases render probable the inference that the disease was controlled and brought speedily to a favorable termination by the treatment. They also tend to show that the disease is essentially a fever, and that treatment is to be directed to it as such and not as a purely local pulmonary affection.

THE NEW FEVER OF SOUTHERN LOUISIANA.—A. C. Love, M. D. (*Gaillard's Medical Journal*, Jan. 1881), says: "The malarial fever popularly known as 'rice fever' has prevailed to an unusual extent during the past summer in the rice-growing parishes of Louisiana. Some of its symptoms simulate yellow fever; but after investigating this fever the representatives of the National Board of Health came to the conclusion that the 'disease prevailing in the lower coast is an endemic malarial fever of remittent type, and for the most part of a mild character,' and further, that its unusual prevalence is due partly to the meteorological conditions of the past summer, and partly to the widespread cultivation of rice."

The symptoms of "rice fever" seem to be those of the ordinary remittent fevers of other malarial localities, with the type aggravated by the surrounding conditions of the rice plantations.

Therapeutics.

HYOSCIAMINE—ITS USES IN TREATING MENTAL DISORDERS.—Dr. C. H. Hughes (*Alienist and Neurologist*, Apr., '82,) gives the following:

1. The special uses of hyoscyamine thus far indicated are in delirium, especially maniacal delirium, when prompt and decided arrest of cerebral disintegration is demanded and psychical excitement must be at once subdued, and it should always be preferably given under the skin.

2. It is specially indicated in the young and middle-aged, being less liable to abortive action in them than in the aged; for though old persons are readily influenced by henbane, as Hartley has noted, it is apt, for some not fully explainable reason, probably on account of atheromatous states within the brain and un-

equal arterial contractility, imperfect vaso-motor or cortical impressibility, to aggravate rather than calm delirium, though we have occasionally given it with admirable effect in a few old persons who have not shown much evidence of senile decrepitude. We have refrained from using it in the aged when there has appeared the arcus or ptussus senilis, atheromatous arterial degeneration or other marked evidences of physical degeneracy—indicative of "the beginning of the end" of life.

3. The special forms of delirium in which hyoscyamine has acted best in our experience are delirium tremens and incipient acute mania, in which visual illusions of small and near objects torment the patient and there is constant action. The effect of dispersing visual hallucinations is probably due in part, at least, to its dilation of the pupil. It is also an especially desirable remedy in acute and violent cerebritis of the sthenic type, when cerebral excitement is high and the pupils are contracted. On the contrary, it is contra-indicated in the indefinite asthenic delirium of some forms and stages of dementia. Hartley's caution against its administration in advanced age, and especially when associated with great muscular weakness, may well be extended to markedly exhausted states of the cerebrum, in which structural change and marked cell degeneration in the cortex, rather than mere cerebrasthenic and vaso-motor disorder, are the most appreciable cause of the psychical disturbance.

4. It can not, therefore, be so safely given in post-appoplectic delirium, or in that resulting from a cerebral embolus, or suspected softening. It is singular that it does not answer so well in post-epileptic psychical disturbance as chloral, but such is our observation; for it exerts some influence over epileptic convulsions, as Hartley and Reinhard* have asserted, but it is by no means comparable to chloral enamata either in this or other forms of spasm. Its influence on the sympathetic may be to some a satisfactory explanation; but it dilates, when further dilation is possible, the already dilated pupil of epilepsia, while it steadies their mobility, the latter effect, probably, by making the paralysis of the iris fibres complete.

5. Hyoscyamine does not constipate, or produce gastric pain or nausea, as morphia often does, but then it is not a remedy for the stomach, and unlike chloral, its administration is never followed by headache. Its invariable effect of dilating the pupil is both a commendatory and objectionable property. The indications for dilation have been referred to, while the undesirableness of this effect, in many cases, is obvious.

As an alternating remedy to other hypnotics, it is of signal value when sleep has to be repeatedly induced and for a long time, or psycho-motor convulsive movement for a long time, and often, overcome in the same patient; but that it has any advantage over chloral hydrate, or that it is in the majority of cases as valuable as chloral, is doubtful. Indeed, we greatly prefer the latter, when it can be given by the mouth, largely diluted with water, notwithstanding we have regularly and for many days in succession procured prolonged and refreshing sleep in cases of high maniacal excitement, when nothing could be given by the mouth, and no other hypodermic acted so efficiently, the patient going to sleep night after night after a five or six minim dose of the aforementioned solution of the alkaloid (gr. j. *ad* ʒ j.). But that it has any specially curative action on mania independent of its power to tranquilize and rest the brain through the sleep it induces, we have had no confirmation from our observations though it certainly has a beneficial effect in this way, and Nature recuperates the brain rapidly and effectually in many cases if ample and timely sleep is regularly induced. We would, therefore, restrict its use to the less exhaustive forms of mania and delirium, and for controling convulsions, employ it as an alternative rather than as a principal therapeutic agent.

The position of the patient most favorable for its salutary action is the recumbent one; the time, night time; the maladies, acute deliriums or manias, preferably of a sthenic type with active psycho-motor excitation.

It is not equal to morphia in melancholia though it is a good alternative expedient with quinine, camphor and cannabis indica superadded, to avoid the establishment of the morphine habit for the long continued use of which may be necessary.

It ought to be seldom given, not more than once in twenty-four hours—notwithstanding it is sooner than this eliminated and its perceptible effects soon pass off—and in full doses, and the patient kept recumbent till the system is fully under its hypnotic influence, when, of course, no active surveillance will be required. We have never ventured the experiment of giving it to a maniacal patient and leaving him or her to go about after its administration. Such a course, from what we know of its physiological power, might prove disastrous to a greatly excited and debilitated maniac by paralyzing the heart; for, like atropia, in toxic doses it depresses the vagus as well as the sympathetic and psychomotor centers. In subsequent numbers we shall give some clinical illustrations.

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*Archiv. fur Psyc., XI. Bd., 2 Heft.

Toxicology.

TOLERANCE OF POISONS. — Rossbach (*Archiv. für die Ges. Physiol.—Lond. Medical Record*) from a very extended study draws the following conclusions:

1. Tolerance of poisons comes on very rapidly (except in nervous and hysterical subjects), and it is thus that at the third or fourth cigar symptoms of tobacco-poisoning cease, and that the quantity of alcohol necessary to produce intoxication increases with use. When atropine is given to dogs daily, certain symptoms are observed at first which disappear in the course of a few days—such as hyperæsthesia of the skin, trembling of the body, etc. The animals then became as lively and vivacious as unpoisoned animals.

2. The organs of man and of animals become equally habituated to poisons, and in the same organism each organ behaves differently towards these.

3. There are organs which never become habituated to poisons, in the sense that they always behave towards them as at the beginning of the administration. It is thus that morphia, always administered in the same dose, induces sleep for weeks or months; that the smoker, consuming an uniform quantity of tobacco, feels, at the end of years, the same beneficial influence continued. It is the same with tea and coffee. Certain organs are influenced by the use of atropine after long usage as at the commencement—the pupil always dilates, the salivary secretion is diminished. It is precisely those organs which are most impressionable which are least influenced by habitual use of poisons.

4. Nevertheless those organs, by the prolonged use of a poison, remain influenced by it for a period of time which progressively diminishes; hence drunkards, and those addicted to morphine, experience the need of more and more frequent doses of alcohol or of morphia.

5. Another series of organs reacts differently towards the same poison, according as it is administered for the first time or after a lengthened interval. Thus atropine acts at first upon the heart by paralysing the vagus, whilst at a later period it paralyses the motor nerves and the muscles of that organ.

6. Again, there are organs which become habituated to certain poisons (tobacco, alcohol, morphia), so that after a certain time they present no functional derangement.

7. These propositions are not valid, except where the dose remains the same. When the dose is increased, however slowly, a time comes when the poison again exhibits its action.

8. In an organism accustomed to a certain dose of the poison, a much larger dose acts in the same manner as a small dose on an unhabituated organism.

9. In general, the symptoms of chronic poisoning are extended to more organs and functions than those of acute poisoning. Thus in chronic morphia-poisoning we observe restlessness, insomnia, hyperæsthesia, neuralgia, an exaggeration of reflex movements, anorexia, malaise, vomiting, palpitation, albuminuria, malnutrition; whilst in acute morphinism purely nervous symptoms alone are observed.

10. In man and animals, if the dose of the poison be not continually augmented, but be kept at medium quantity, this amount may be supported with impunity for the rest of life. The proof of this is, that thousands of persons arrive at an advanced age who have taken for long periods tobacco, alcohol, coffee, or opium.

11. If the use of the poison be broken off at the end of a relatively short time—weeks, months, or it may be, in exceptional cases, years—health is restored in the course of a few days. But if the cessation take place after a more considerable period of use of the poison, certain morbid phnomena are observed, such as trembling, acute delirium, intellectual feebleness, and lowness of spirits If now the use of the poison be recommenced, these symptoms rapidly disappear.

12. There is an epoch at which reparation of tissue is still possible, and one when this is no longer possible. In this last case, there is a notable change in the chemical composition of the substratum of the tissues; and this modification is appreciable by the microscope in certain organs, as, *e. g.*, the liver.

13. In order to explain the effects of chronic poisoning, we may say that the organs are not more impressionable to normal stimuli (carbonic acid, ferments), but only to the poison; failing this, the body is deprived of excitatants, and a profound depression of most of the functions is produced.

14. The fact that certain organs end by being no longer impressionable to poisons, is comparable to the immunity which certain organisms enjoy towards certain organized poisons (those of infectious diseases) when once they have been the seat of their action.

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Original Communications.

Cystitis.

Paper read before the North Central Ohio Medical Society, held at Ashland, O., Sept. 27, 1882.]

BY R. HARVEY REED, M. D.

THERE is perhaps no other disease which comes under the physician's notice that gives him more annoyance to the square inch than the different forms of cystitis; and which after all his care and continued treatment results with a greater percentage of unsatisfactory cases, and especially is this so in the chronic forms of this disease. A part of this is in many cases traceable to the patients themselves in their delay in obtaining medical advice, together with the indiscriminate use of empiric compounds.

How frequently does the physician find the history of this class of patients dating back weeks and months before they seek for medical advice, and when interrogated as to the cause of their delay, they will promptly answer they "did not consider it worth while to go to a physician about a little matter like this, for it has not bothered me much until lately, and I still thought it would get well itself." Thus it is he has harbored a treacherous disease from an acute attack into a subacute or possibly a chronic form; meanwhile you will find in a majority of these cases on further interrogation, he has used at the suggestion of his many friends, bottle after bottle of the thousand and one "kidney" medicines, and after having tried "Buchu and Iron," "Kidney Wort," "Dr. James' Restorative Drops for Kidney Diseases," "Taraxine," "Vegetable Compound," "Parker's Ginger Tonic," besides rubbing his back with "St. Jacobs Oil," German ointment, and given it a thorough drawing with "Benson's Capcine Porous Plaster," all of which to his utter astonishment have failed to give him the desired relief, he has come to you to see what in the world is really the trouble with him, and desires you to "fix him up" right away, notwithstanding he has patiently labored with these former haphazard uncertainties for weeks and months; and unless the physician works wonders on him in a few days he is off like a rocket to some other member of the medical fraternity for his opinion and treatment. Thus he roams around until he reaches an almost, if not altogether incurable condition, before his experience has taught him that "a rolling stone gathers no moss."

During his nomadic medical treatment he has had acids and alkalies, vegetable astringents and mineral astringents, tonics and alteratives, been washed inside and out, anointed and blistered, and told by one it was a constitutional disease, "and must have something for his blood;" and by another that it is local and needs nothing internally at all, and that such treatment will break down his constitution and ruin his stomach with "strong medicines;" that all he needs is to have the bladder washed out and he will soon get all right, until his mental condition is like that of the poor donkey in the fable which stood half way between two hay stacks, looking first at one and then at the other, but failed to make up his mind which one was the best for him to dine at, until he starved to death, undecided in the midst of abundance.

Why is it we are obliged to meet with so much diversity of opinion on the causes and treatment of this malady? Why is it we meet one physician giving acids and another adhering to alkalies, another depending entirely on local remedies, and still another on constitutional treatment?

We must certainly look for the solution of the former in a failure to study out and determine at least as acurately as possible on the living patient, as well as to embrace every opportunity to confirm each doubtful point by carefully conducted post mortems, as to the exact and particular pathological condition of the cases entrusted to our care.

This being the fact in the former, it naturally leads to the latter, and the result is patient after patient passes from under our care and goes to some other member of the medical profession in search of relief. But says some one, what is the use of commencing a thorough course of treatment? They are as a rule a class which are not content to continue under your treatment long enough for success, and the only way we can hold such patients is to give something which will afford them the most speedy relief and thus hold them as long as we can.

Not so; we cannot afford to treat our patients thus, and should not be content with giving some "cut and dried" form of treatment, which to our notion may apply to all cases of cystitis where the same general symptoms prevail; and if it happened to give relief, well and good; and if not, comfort ourselves with the consolation that he has already changed physicians half a dozen or a dozen of times, and that sooner or later he would only leave us anyway.

We who pride ourselves as being *regulars* in the practice of medicine should scorn such methods of treatment and leave these practices to be applied by the charlatan and mountebank.

It must be borne in mind that cystitis seldom occurs as a simple idiopathic disease, but as a rule is the result of some existing derangement of the economy, and in reality is generally only a symptom of the real disease.

Among the most frequent causes of cystitis are inability to completely empty the bladder after micturition, disease of the prostate, gonorrhœa, stricture, calculus, unskilful use of the catheter, use of certain drugs, colds, gout, retention of the urine, extending of inflammation from neighboring parts, chemical changes of the urine, paralysis of the walls of the bladder, the existence of saculi. Morbid growths within the viscus, external injuries, displacement of the uterus and pregnancy, are among the leading causes which may excite and prolong an attack of cystitis.

The symptoms which accompany an attack of cystitis vary in accordance with the causes and different stages of the disease.

A patient comes to your office and says he has been exposed to a draft or inclement weather, and thinks he has taken a severe cold, and a few hours after felt a weight and uneasiness in the region of the bladder, followed with a desire to micturate very frequently, which is attended with marked straining and tenesmus and a feeling of "not being done" after micturition, with more or less burning along the urethra and pain at the head of the glans penis, which is increased by the act of micturition.

These symptoms may have been ushered in with a slight chill and fever, with headache, furred tongue and general malaise, loss of appetite, and pain in the back, while in other milder cases none or but few of these febrile symptoms are present.

The urine is at first scanty and very high colored, and frequently at the outset of the disease abnormally acid, which condition soon changes to that of alkaline. When drawn in a vial or test tube the urine will be found cloudy, which is increased by standing and becoming cool, and if not agitated will soon settle to the bottom of the vessel.

Upon microscopic examination it will be found to be heavily charged with amorphous phosphates and urates mixed with mucus, blood, pus, and vesical epithelium together with shreds of lymph. Very frequently it is decidedly ammoniacal and exceedingly offensive, and precipitates abundance of triple phosphates.

In the more violent forms there is a burning boring pain beneath the pubes together with tenderness in the sacral region and a deep seated pain in the region of the perineum, which at times extends along the inner part of the thighs and is decidedly increased by superpubic pressure or rectal examination.

In the milder form of these cases the patients feel the least inconvenience in the morning, and gradually become more and more annoyed with the advance of the day until evening, when they seem to reach their maximum of discomfort; this is especially true of patients who are not ill enough to be confined to their bed; as the recumbent position in the majority of these cases affords great relief.

The symptoms just enumerated in a general way, are to a greater or less degree found associated with the less complicated forms of cystitis; may be modified according to the causes producing their effect, which must be carefully taken into consideration in our examinations and should materially govern our prognosis and treatment.

The pathological changes which occur in cystitis afford us considerable light on the treatment of this malady and especially should it be a guard against unwarranted prognostications.

"The changes" says Prof. Agnew* "which are produced by acute cystitis, consist of acute vascularity of the mucous membrane, its light-red color being exchanged for one of a scarlet hue, more strongly marked at some portions than at others, in consequence of the over strained vessels giving way at certain points, patches of ecchymosis may also be seen. These circumscribed districts of color are found to consist of zones of vascularity around the glands which lie embeded in the submucous connective tissue, and which have participated in the general inflammation. In addition to these structural alterations, the membrane is swollen, softened, and sometimes ulcerated at points." "The inflammation may involve all the coats of the bladder and even extend to the vesico-perineal cellular tissue, occasioning by the resulting interstitial infiltration marked thickening or suppuration in and about the walls of the bladder, together with peritonitis."

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*Agnew's Surg. vol. ii, p. 528.

Not unfrequently a saculated condition of the bladder is formed, or as in a case seen by the author, it may result in complete adhesion of the central portion of the walls of the bladder, forming a sort of an hour glass contraction of the cyst itself with two large sacs connected by a small orifice not larger than the small end of a rye straw. In association with this there was marked thickening and suppuration of the mucous membrane which had extended to the prostate gland, resulting in the almost entire obliteration of that body. Adhesions of the walls of the bladder may occur at any part of them as a sequela to a severe attack of cystitis.

In a case of long standing, a follicular enlargement may take place similar to that seen in chronic follicular pharyngitis,and may extend over a part or nearly all of the mucous membrane of the bladder.

The diagnosis of cystitis as a rule is very easy; there is generally but very little danger of mistaking it for anything else, unless it is acute prostatitis, which mistake is more apt to occur when the cystitic inflammation is circumscribed to the neck of the bladder, and then a careful analysis of the symptoms will act as an almost infallible guide in the proper direction.

In cystitis there is almost constant tenesmus which is very greatly increased after micturition and is associated with marked pain and burning along the urethra.

The urine is mixed with mucus or pus, and often with both, which is discharged at the last and soon settles down to the bottom of the vessel in which the urine is collected; retention of the urine is not common in simple uncomplicated cystitis; as a rule the prostate is found to be in a normal condition, whilst in prostatitis there is marked enlargement and tenderness of that gland on rectal examination; retention of the urine is common, the patient frequently being only able to pass a few drops at a time, before it stops altogether.

Immediately following the act of micturition there is decided pain felt in the glans penis, not unfrequently a few drops of blood will pass, or there may be a gleety discharge from the urethera. The patient feels a weight in the perineum together with heat which is not unfrequently reflected to the rectum, and is more intense if the patient indulges in much exercise.

If the urine is carefully drawn with a soft catheter it will be found normal and not charged with mucus and pus as in cystitis; slight chemical changes may take place however if it is allowed to remain a long time in the bladder, which fact should be borne in mind during our investigations of the case. If the swelling and enlargement of the prostate is not sufficient to interrupt the flow of the urine entirely, the tenesmus in micturition will not be found so severe as in cystitis.

The prognosis in cystitis will very greatly depend on the causes producing it. In simple cystitis it is generally favorable; but in the chronic forms and especially if it is associated with a saculated or paralyzed bladder, or where marked organic changes have taken place, enlargement of the prostate, advanced age, marked debility, or where some nephritic complication exists, or where it is due to traumatic cause the prognosis should be very guarded and the patient informed that all he had any right to expect from the hands of his medical adviser is palliative treatment. If, on the other hand, it is due to displacement of the uterus, calculus, pregnancy, gonorrhœa, stricture, the use of irritating drugs, or from slight external injuries, cold, or retention of the urine, the prognosis is favorable just in accordance with the ability of the surgeon to relieve the causes which produce it, which generally succumb to a proper line of treatment.

A case of simple cystitis will generally run its course in a week or ten days and seldom exceeds a fortnight, while in chronic cystitis its duration is beyond prediction and may last from months to years, or during the remainder of the patient's lifetime.

The treatment of cystitis should always be very guarded until every means at our command has been exhausted to establish a perfectly clear diagnosis as to the exact causes which are producing the cystic inflammation.

It is not enough to be content with a few questions as to the quantity of urine passed, the frequency of micturition, the pain, character and location, but we should definitely ascertain whether the urine is changed in chemical composition before it enters the bladder or after it has reached that organ, by carefully draining off all the contents of the bladder, with a catheter, after which it should be carefully washed out with tepid water and a soft catheter allowed to remain in the bladder, and some of the urine collected for chemical and microscopic examination.

Frequently a careful examination of the urine collected in the above manner will reveal the fact of the entire change in the urine all taking place in the bladder, which should eliminate all indication for directing our treatment to the kidneys as being the source of irritation.

If on further examination we find the cystic inflammation is the result of prostatitis our treatment should be directed to that, and the free use of poultices to the perineum instituted, or the use of counter irritation in the form of small blisters or thapsia plasters will be found to be very serviceable; the use of leeches to the perineum or light cupping will speedily give relief, especially where there is a great deal of congestion. In cases where there is a chronic irritation of the gland and no tendency to suppuration, I have found the use of carbolic acid or a strong solution of nitrate of silver, when carefully applied with a porte-caustic along the prostatic portion of the urethera, give decided relief, especially in young persons, in whom permanent enlargement of the gland had not yet occurred. In addition to this the daily use of the catheter in removing all the urine from the bladder and the careful washing it out with a mild decoction of hydrastis canadensis will soon relieve the patient, notwithstanding the cystitis developed by the former is a great source of irritation to the prostatic inflammation, and *vice versa.*

Under all circumstances quietude and the recumbent position should be encouraged by the physician, and thus if possible avoid the very undesirable condition of suppuration. If, however, suppuration seems inevitable it should be favored by the free use of rubber bottles filled with warm water, together with the hot sitz-bath and poultices.

Great care should be exercised to guard against distention of the bladder with an accumulation of urine, and should the swelling of the gland be sufficient to cause retention of the urine it should be carefully relieved by the use of the catheter.

If you are satisfied that pus has formed in the gland do not wait for nature to help you out, by letting the pus discharge spontaneously into the bladder, rectum or urethera, or perhaps burrow into the pelvis or elsewhere, doubly complicating the case, but apply the knife just as soon as you are confident it has formed, and give it a free exit by an incision through the walls of the rectum, the perineum, or by rupturing it into the urethera, as its pointing may indicate, and thus lessen the chances for a fistula as much as possible.

The internal treatment should consist in tonics with sufficient anodynes to control the pain, together with demulcents in some form, in quantities sufficient to render the urine as bland and unirritating as possible.

We trust you will pardon us for taking up so much of your valuable time in the treatment of prostatitis, but we have found it to be one of the most frequent complications in cystitis, either in a primary or secondary form, and hence felt that it should receive more than just a passing notice.

Should we find our patient was suffering from gonorrhœa, from which an inflammation of the bladder had arisen, the former should demand our first attention, and the causes producing the cystitis removed. Likewise if the source of irritation is a stricture, see that it is dilated by proper treatment; and thus we might go on until we enumerate all the causes producing cystic inflammation, which in turn should demand our first attention until they are removed, if we wish to see our treatment of the cystitis itself bring forth the most satisfactory fruits.

Taking it for granted that all these predisposing causes have been removed and we are about to direct our attention to the inflammation of the bladder itself, then it becomes necessary to bring all our science and skill to bear on what we are almost justifiable in calling the sequela of some of these former maladies and arrest its ravages, and so far as possible repair the damages already done to the economy.

If we find the urine is excessively acid, and scanty as is frequently the case, making it doubly irritating, marked benefit will be derived from the use of alkalies in the form of bromide of potassium, which may be combined with, either the tincture of hyoscyamus, belladonna, lactucarium, opium, uva ursi or buchu. The bicarbonate of soda combined with the fluid hydrastis without alcohol, is a favorite remedy, and may be interluded with the free use of tea made from flaxseed, slippery elm bark, sassafras pith, or acacia, which will be followed with the most satisfactory results, especially if associated with hot fomentations over the supra-pubic region, and rest.

If the inflammation has gone on until, from the acute congestion, we are threatened with rupture of the delicate capillaries of the mucous membrane of the bladder, leeches should be applied to the perineum and over the hypo-gastric region, the free use of dry, together with an occasional wet cup, will render great assistance in reducing the congestion. If the rupture of capillaries is manifest, the hæmaturia should be as promptly arrested as possible, by the use of ergot, tr. of cannabis indica, or opium, either separate or combined, to contract the capillaries, relieve the congestion and check the hemorrhage; if these remedies are not sufficient to control it, cold may be applied over the pubes in the form of cloths wrung out of cold water, or still more preferable, if obtainable, in the form of ice bags; also small bits of ice may be slipped into the rectum. As a rule, in acute hemorrhage, astringents used internally are too slow in their action to give us as prompt relief as is most desirable, and hence should not be depended on too much, but may be combined with the remedies above mentioned which have a more decided action on the capillaries through the vaso-motor nerves.

Astringent injections may be used in the bladder, but in acute congestion the danger of increasing the irritation is too great for us to consider it advisable under all circumstances; but if the case has reached a sub-acute or chronic form they are more desirable, and even then I cannot say that my experience has been the most flattering from their use without first directing attention to the primary cause.

Not infrequently we may have a clot formed, thus checking the hemorrhage, whilst the urine passed for hours afterward may be mixed with blood, the result of the breaking down of this clot, while really no actual hemorrhage is taking place.

If the cystitis has passed into a sub-acute form and the urine is charged with pus, instead of blood, we will find it of the greatest importance to look after the nutrition, and support the digestion with tonics such as quinine, hydrastis or nux vomica, combined with a mineral acid, while in anemic or debilitated cases iron or cod-liver oil, the latter made into an emulsion with eggs and phosphoric acid, will be found to give very beneficial results, while the diet should be of the most nutritious character, easily digested and readily assimilated.

We must remember now that the condition of the bladder has been entirely changed, and the treatment indicated is that of a stimulating nature to the mucous membrane; the use of an emulsion of terebinthina combined with the balsam of fir or a decoction of the roots of the triticum repens, tar water, ext. of the uva ursi, eucalyptus globulus, or grindelia robusta will be found serviceable. I have frequently found the most decided relief from the use of the ext. buchu compound combined with syrup of acacia.

In the more chronic cases where the urine is decidedly alkaline and very offensive and loaded with large quantities of pus and mucus, the latter being the legitimate result of the chemical action of ammonia on the pus cells, benzoic acid is indicated for its soothing as well as chemical effects on the carbonate of ammonia, which it neutralizes and forms into a soluble compound and thus arrests its otherwise rapid formation into the triple phosphatic crystals of ammonio-magnesia and lime, and removes one very decided source of irritation.

Prof. S. W. Gross, of Philadelphia, recommends the following compound, from which he claims "the most excellent results:"

℞	**Bal. copaiba**	ʒ iv
	Ac. benzoici	℈ iv
	Gummi arabici	ʒ ij
	Sacchari	ʒ ij
	Ol. gaultheriæ	gtt. xx
	Aqua camphoræ, q. s., ad	℥ viii.

M. S. Teaspoonful every two hours.

Prof. Goodell, of Philadelphia, recommends the use of atropia combined with acetic acid, where there is cystitis in females, associated with considerable vesical irritation.

Where there is a great deal of irritation along the urethra in females, it can be very greatly relieved by the use of anodynes, such as equal parts of camphor and chloral, rubbed together, to which should be added a quantity of glycerine equal to both of the former, and applied along the vaginal walls of the urethra, while at the same time a liniment composed of equal parts of ext. belladonna and aconite combined with ol. hemlock and chloroform may be applied with happy results over the pubes and hypogastric region.

Scores of other remedies of good repute might be enumerated in this connection, but it is presumed that from those already mentioned the general line of remedies will be indicated and we will leave to the judgment of the practitioner such minute changes as will be indicated in each particular case, without attempting to stereotype them into special formulas.

It seems almost superfluous to call attention to the necessity of looking after the secretions of the economy in a general way, as well as the support of the digestion and assimilation in addition to the treatment specially directed to the diseased condition of the bladder and the cause or causes producing it.

The general use of mineral acids in these affections deserves at least a passing notice, and the fact impressed upon our minds that notwithstanding their constant use in these maladies, especially when there is a marked alkalinity of the urine, they are only beneficial so far as they act as tonics. The generally prevailing idea of giving them because the urine is alkaline, with a view of rendering it acid, is a decided mistake, and will be found a failure for two reasons: first, in the majority of these cases the urine becomes alkaline after it enters the bladder; and second, the physiological effect, as more recently determined by our best authorities, of mineral acids, is simply tonic and astringent; they are neither assimilated as acids nor eliminated as such, even when taken in excess, except in a few cases which are still under protest, and if true, only serve to prove the general rule.

The fact in my experience is, that I have received more benefit from the use of alkalies, properly used, that from acids, and when I received the greatest amount of good from acids it was when they were given at proper intervals in association with alkalines, notwithstanding the alkalinity of the urine at the same time. We do not expect to derive this benefit from the direct effect of the alkalies on the renal secretion alone, but chiefly from their action on the liver and the support of the digestion, by averting fermentation and malassimilation, while the acids by increasing the secretions of the gastric glands and by keeping up their activity, lessen the tendency to fermentation and indigestion. Hence, we believe that whenever we fail to use either of the above extremes in our materia medica in those channels which are calculated to improve the digestion and assimilation in the treatment of cystitis, we will fail to meet with the greatest amount of benefit from their use.

Thus far we have chiefly spoken of the internal use of remedies in this malady, which, although of equal importance, yet we do not consider them of any more value that the judicious use of proper remedies applied locally by injections into the viscus.

It must be remembered, however, that the bladder is lined with a very delicate mucous membrane, which is easily irritated and will not bear scrubbing out, like an old bath-tub, and when so treated by the unskilful practitioner, we should not find fault with this method of treatment because it is not attended with success in such hands.

The fact that the bladder is the natural receptacle of an effete excretion of the economy, of an exceedingly irritating nature to other healthy tissues, but which in the normal condition does not affect its natural receptacle unless it becomes irritable from disease, is no reason for using strong irritating applications for washing out the vesicle when in a diseased condition, and already irritated with the abnormal condition of the urine almost beyond endurance.

When the bladder is in a healthy condition, the urine undergoes little or no change after entering it; but when affected with disease, rapid and decided chemical changes take place, which are not only induced but exaggerated by the diseased condition of the cyst, and which in and of themselves very greatly increase the vesical irritation we are seeking to relieve.

Hence, it very plainly becomes our duty to remove as far as possible the offending secretion, by carefully injecting the bladder with some suitable preparation which will not only act as a cleanser, but which at the same time will meet the necessary indications in simple irritation, acute congestion, suppuration, or ulceration, as the case may be. From this we will readily observe that the local application should vary according to the conditions in which we find the bladder, and it is not at all surprising to find our medical brethren failing to relieve a case of cystitis, when they neglect to apply their remedies in a skilful and scientific manner, but depend on some particular wash for every case they meet, or a variety of lotions indiscriminately used.

In washing out the bladder great care should be used in inserting the catheter, which we prefer to be a double, soft catheter, fitted to an ordinary household syringe, or still more preferable a balloon-shaped rubber bag capable of holding from a pint to a pint and a half, with which the liquid can be allowed to gently trickle into the bladder and escape by the means of the double catheter until the desired amount of cleansing and medication is secured.

Next to this a single flexible catheter may be used, with an ordinary piston syringe, but the danger of using too much force, together with over distention of the cystic walls by hydrostatic pressure, is too great to recommend this without first calling attention to these facts.

If, however, after emptying each syringe full, which should not exceed two or three ounces, you allow the greater part of it to escape through the catheter before injecting the next quantity of fluid, and great care is taken not to inject the liquid into the bladder too forcibly, but allow it to flow in gently, the otherwise injurious effects can easily be avoided. But it must be borne in mind that a very high pressure can be rapidly attained with an ordinary syringe, which, if not guarded against, may produce rupture of the bladder and death, especially if it is in an ulcerated condition.

The temperature of the liquid used should be as near as possible that of the body and the frequency and character of these applications based on the type, cause and stage of the disease. Before using the medicated washes always see that the bladder is thoroughly cleansed with repeated washing of tepid water, bearing in mind not to use over two or three ounces at a single injection, if you are using the ordinary catheter, before you allow it to escape.

In order to secure a thorough washing of the entire mucous membrane the patient should be given different positions which may favor the liquid reaching every part of the inside of the cyst, which should be observed in the medicated appliances also.

The remedies which have served us the best when used locally in the acute congestive stage is a tea made from slippery elm bark, to which may be added from one to three grains of plumbi acetas to the ounce, or a few drops of the extract of hyoscyamus, belladonna or stramonium, or an aqueous solution of opium.

The mucilage of acacia, starch water or a tea made from the pith of the sassafras, are likewise very serviceable and may be used in the place of the slippery elm bark. A solution of nitrate of silver of one grain to from two to four ounces of water will often give prompt and decided relief.

If the disease has reached the suppurative stage it is necessary to increase the quantity of the nitrate of silver to even fifteen or twenty grains to the ounce for one or two injections, which may be followed with a wash of fluid hydrastis without alcohol in the proportion of a drachm to the ounce, which may be combined with good effect with the biborate of soda, five to ten grains to the ounce, or the sulphate of zinc, one to two grains to the ounce. If the urine is very offensive the borax can be combined with carbolic acid from one minim to half a drachm to four ounces of menstruum.

Balsam of Peru rubbed up with the oil of sweet almonds in the proportion of a drachm to four ounces and injected into the bladder will be found very serviceable, especially where there is ulceration combined with suppuration.

A solution of salicylic acid, borax and carbolic acid in the proportion of ten grains of the former, thirty of the second and twenty minims of the latter to four ounces of water, will be found an efficient remedy where there is much decomposition of the urine; likewise a solution of benzoic acid may be used with good effect.

In England vesical suppositories inserted by means of a catheter shaped canula with a neatly-fitting stylet, are sometimes used with good effect, but I fail to see any advantage in their use over medicated liquids used by simple injections.

Where there is much pain and distress it is necessary to resort to the use of anodynes, which, we must bear in mind, do not have the same constitutional effect when placed in the vesicle as when used in the rectum, which is due to the exceedingly weak absorbent powers of the bladder as compared with those of the former.

Anodynes therefore when employed in cystic diseases are almost entirely local in their effects; while, if used in the same doses per rectum, they would produce grave constitutional disturbances, injected into the bladder, they are only followed by the most desirable results in relieving the local pain and are not taken up in the circulation to any extent whatever.

Besides the use of a solution of morphia acetas and plumbi acetas, which are generally effective, not only in giving the patient temporary relief, but also decided permanent relief where there is much mucoid or purulent discharge associated with great pain and distress, belladonna, aconite or hyoscyamus may be used in the form of a decoction with hydrastis, tannin or a tea made from the root of the common blackberry, with favorable results.

Where there is decided ulceration vaseline may be combined with iodoform in the proportion of from ten to twenty grains to the ounce, to which may be added from ten to thirty drops of balsam Peru and the same quantity of carbolic acid; this mixture warmed to the temperature of the body, becomes liquid and can be very easily injected with an ordinary syringe, and not only soothes the irritation and pain, but stimulates healthy granulations and forms a coat over the ulcers which is a protection to them from the irritating influences of the urine, which should be kept constantly drawn off even at the expense of keeping the patient in a recumbent position with a catheter inserted into the bladder, so as to allow the urine to escape as fast as it descends from the kidneys.

As to the use of the "curette for scraping the surface of the bladder" in "chronic cystitis," which has recently been resorted to by a few members of the profession as an experiment, time only will decide the merits of this form of treatment.

The only form of chronic cystitis in which it would seem to be advisable is where there is chronic follicular inflammation, and then as a general means of destroying these it is certainly hazarding grave risks to the patient, whilst its use in ulceration would certainly be injurious and endanger the perforation of the vesical walls.

Whilst we do not expect the views set forth in this paper will meet the approval of all the members of this society, yet we trust they may develop thought and original investigation among its members which will result in securing a greater percentage of recoveries among those afflicted with this annoying and distressing malady than has been accomplished generally in the past; and instead of allowing the public to look upon it as an incurable malady and thus open the gates to charlatans and quacks, we should seek to learn the causes and meet them with scientific tactics.

The Effects of Alcohol as Displayed in the Formation of the Criminal Nature.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

WE have not now to do with crimes committed under the impelling force of actual intemperance, nor with the delirious exhibitions connected with the mania of intoxication. Our object is to show how alcohol may so modify and change and debase the moral nature of man as not only to fit him for a life of criminality, but absolutely to impose it upon him.

There seems to be a kind of unwritten dogma that the transmission of constitutional traits, particularly those which are esteemed to be morbid, is always exact, either in kind or intensity; or else in the perfect substitution of one feature for another. We will endeavor to show that, while heredity is a factor of immense power in the modifications of form and character, it nevertheless seldom or never multiplies or reproduces itself exactly.

Omitting the morbid characteristics which may owe their inceptions to traumatism; omitting, also, those neurotic proclivities which may arise from climate or disease or occupation, and become at last hereditary, I will ask attention to the effects of ALCOHOL in producing constitutional mental disease and imperfection, and will notice the distinctions which may be observed between the morbid activity aroused in the ancestor, and the outcome of that same activity as displayed in progeny.

In the year 1868, Dr. Prosper Despine, of Marseilles, France, published three volumes of a work on "the abnormal mental and moral manifestations of criminals."[*] In 1875 he issued a fourth volume on the same subject. A circumstance which struck Dr. Despine, was "finding continually in persons who commit great crimes in cold blood, and frequently also in those who commit them when under the influence of passion, a physical condition characterized by the absence of all repugnance while meditating those acts, and of all remorse after they have been committed. * * * There must be something abnormal in the disposition of criminals when they yield with facility to desires which excite the strongest repugnance in a truly moral man, and which most clearly reveals itself, when we see no subsequent symptom of remorse for the immoral act."

Dr. Bruce Thompson, of Perth, Scotland, says: "My conclusions are conformable to those of Dr. Despine. Criminals present a low psychical nature. The moral faculties in great criminals are so feeble that they cannot resist the tendency to crime. In all there is great lack, and in some a total absence of the moral sense." Dr. Frederick Hill, inspector of prisons in Scotland, and Prof. Laycock, of Edinburgh, affirm that "nearly all criminals are morally imbecile."

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[*] I am indebted to an essay on Crime, its Cause and Cure, by Rev. Dr. E. E. Wines, for many of these facts.

In the remarks which ensue, the points that will receive special attention will be those relating to the questions: first, is the moral imbecility of criminals a form of moral insanity? Second, is it of necessity associated with radical intellectual impairment?

There are two ways through which alcohol may occasion serious permanent disturbances in brain functions both intellectual and moral. One, and by far the most common of its modes of action in this direction, seems to be, through the operation of its anæsthetic property. This element of the alcoholic impression, when applied persistently for very long periods of time, certainly would not fail in the effect of establishing an hȧbitual, and at length constitutional, callousness and insensibility in the mental faculties, both rational and moral. This would indubitably be reflected in the moral nature, and exemplified in the moral conduct.

The other avenue through which alcohol may work injury to brain function, is by the operation of certain properties of that agent, which affect the organic processes in the interstitial brain tissue. In this way, certain trophic changes are produced, which tend to seriously impair the integrity of the cortical cells, as well as the nerve fibres themselves.

The latter mode of alcoholic impression upon brain function is no doubt of much less frequent occurrence than the former. Yet it is more obvious to the senses, and therefore better fitted for illustrating the way by which alcohol may at length induce a state of moral imbecility; and I will therefore direct attention more especially to the disastrous effects that may flow from the use of alcohol upon the organic health and stability of the brain.

Not to become tedious, it will be enough to point to the fact that alcohol steadily drank for a long period of time and not necessarily to absolute intoxication, is prone to act injuriously by increasing the growth of the fibrous tissue of the body. This hypertrophy affects, as is well known, the fibrous structure of the kidneys and liver; and finally, by contraction, there are induced very grave structural as well as functional disease. So also the hypertrophy invades the precincts of the brain. Here it produces an augmentation of the connective tissue of that organ. By virtue of this hyperplasia, it intrudes upon and crushes nerve cells and displaces nerve fibres. Nor is this all; for the adventitious tissue subsequently contracts, strangling the finer capillary vessels, interfering with the proper nutrition of the brain, and causing the several forms of cell degeneration in the gray substance; at the same time the nerve tubes are disconnected from their proper cell association, and may become themselves ruptured and broken. Of course such a series of catastrophies coming upon the integrity of the brain must lead to the most calamitous results, as for instance, paresis and megalomania.

But our business is with these morbid phenomena *while in progress.* The process of wreck and disintegration when fairly in activity is accompanied at first with painful and pitiful mental disturbances. As might be expected, brain wreckage is attended with great mental disorder; and *delusions* always, in this stage of the malady, *of persecution*, are constantly present. About the same time hallucinations, especially of hearing, trouble the mind greatly. The hallucinations are of a threatening and insulting character, strengthening and fortifying the delusions.

But there is a portion of the brain which is not associated with the reasoning faculties and ideational centers, and which is also involved in the process of disintegration and partakes of all the structural changes and calamities that have been described. I refer to that portion which presides over the coordination of the mental faculties and functions; that portion which enables individuality and responsibility and personality to take form and appear, out of what would otherwise be an unsystematized jangle and snarl of mental phenomena; that portion of the brain in fact which represents the true moral nature of man.

In the physical disasters thus operating upon the ideational centers, the mind, originally sound and settled, becomes unsound and unsettled. The modes and subjects of thought are radically changed through the violence of brain disturbance. This process of change is not confined to the ideational centers, but it invades also the centers of association or coördination. The sense of personal identity may even be destroyed and the affected mind may believe itself to be some other mind. The various phases of changing moral and mental states may possibly induce the belief of a double or even multiple mind, as the thoughts and feelings of one state of brain health are mingled and associated with the thoughts and feelings of another state of brain health.

Here we have confusion of mind and confusion of morals as well. For those finer and purer shades of mental function which represent the most exalted moral sensibilities are, by reason of their delicate and refined nature, first of all, perverted, lost or destroyed, through the cruel physical injuries inflicted upon the coordinating centers by the toxic power of alcohol. The consequence is that a person in whom these destructive processes have made considerable advancement is not only a lunatic intellectually, but he is morally insane besides. His idea of personality is gone; his sense of responsibility is gone, for the nerves of association no longer respond in the function of coördination, either of thoughts or feelings. The ego is impaired or lost; and like an infant in whom a strict association of faculties cannot take place by reason of lack in experience, the wrecked mind, merely from the impulse of sensation—not reason—claims what is pleasing. A child will claim some painted bauble which gratifies the eye; and the advancing paretic will probably first indicate his true condition by kleptomania, the motiveless appropriation of property belonging to another.

We will now notice the fact that paresis may sometimes be brought to a halt in the course of its progression, leaving the mental and moral nature damaged but not entirely overthrown.

An illustration or two will make my meaning more clear. L. H., 28 years old, after a long course of steady and severe drinking, had symptoms of delirium tremens. It soon became apparent, however, that his case was somewhat peculiar. He had constant delusions of persecutions of various kinds; was fearful and religious, and had hallucination also—thinking that persons were threatening and insulting him, and he would call for his pistol to shoot them. This case continued without very sensible change for three months. The patient gradually recovered, but was for a long time morose and ill-tempered, with headache. After several years he has had no return of his malady. He is not intellectually as bright as before his sickness. He is greatly given to boasting of his splendid qualities, especially of mind. He is apt to indulge in the criticism of others, always disparagingly, or with some adverse saving clause. He is intensely selfish and suspicious, and of course of defective moral nature. He is not willing to do his part in life's duties, always claiming the most exorbitant remuneration for the slightest service.

Another illustration is the following: N. D——, a man in middle life, had been a steady drinker, but not a greatly excessive one, for many years. He also had a history of syphilis. Brain and spinal symptoms at length began to appear. These progressed to the extent that locomotor ataxy was imminent. The patient became partially paralyzed in his limbs, while the organs of speech were also so much affected that he was compelled for years to communicate by writing. His disease was cut short by immense portions of iodide of potassium.

In this case, as in the former, there was finally a partial readjustment of the shattered brain functions with normal surroundings. Of course this did not take place until the progress of the disease became checked. This process of bringing the impaired cerebral functions into new relationships with exterior mind and matter, was attended by a certain amount of amelioration of the symptoms. But beyond this there never was, and never can be, any advancement toward a real cure. Such an amelioration of the symptoms is always hailed as the harbinger of a return to health; a consummation in the nature of things totally impossible.

The case just described exhibits all the morbid vanity and selfishness of the former one. The man is full of intense self-consciousness; is greatly offended at anything he interprets into a slight upon his dignity. He *requires* this, and *demands* that; and he has an ultimatum ready at hand for all occasions, great or small. He has little, if any, moral nature. He is guided by his feelings and blind impulses, and without reason, or judgment, or alternatives of choice. But it must be remembered that his impulses come from his "bad feelings": his hate, his envy, his revenge, and not from the feelings of a sound moral nature. He is a plausible, but detestable and treacherous liar.

Now, in both of these persons there is a question as to the presence of moral insanity, notwithstanding the delusions and hallucination have ceased with the abatement of the pathological causes of them.

These minds represent three different planes of activity. They were the actors upon, and believers in, three totally distinct stages and qualities of mental life. First, the mental life of normal health in the beginning; second, this healthy mental activity, cast upon and intermingled with the delusive and horrible, but none the less vivid and real, mental life of insanity, as it sprung from an injured and disintegrating brain; and third, both the normal and abnormal mental existences of the past, associated with the imperfect and stolid intellectual and moral existence of the present. In imagination, in revery, in dreams, in impulses unbidden and unexpected, coming, no one can tell whence,—associations spring into consciousness and vibrate perchance in unison with the memories of glorious youth and health; and, again, perchance, alas, with the gloom and despair and tireless agony of insanity. These three mental lives are mingled one with another, and are modified with endless recurring changes, like the changes of the kaleidoscope; so that it is a question of doubt whether and when the true normal personality of such men is uppermost; whether, indeed, it is ever occupying the position of complete responsibility.

Yet the multifold experiences of such minds prevent them, as a rule, from sinking into the courses of positive criminality. However blunted the moral sense may be, there are still ever present some memories and scintillations of an earlier and better state and purer nature, which save and debar from actual crime.

Let us now consider those who have received by heredity the constitutions of such persons as we have been describing. It will at once strike the observer that there are several vital points of difference between the constitutions of these parents and their descendants. There are no monstrous variations in the mental experiences belonging to and modifying the conduct of the children. No sudden suggestion is liable to waver between the associations of lunacy and of sound mind. Whatever the constitution of the progeny may be, it is one and the same from birth, and by birth. The intellectual faculties are probably impaired; but that impairment is not inconsistent with bright, though eccentric qualities. Maudsley and others have pointed out that the morbidly neurotic diathesis may be associated with, if it is not essential to, the highest manifestations of genius.

We do not then find in the descendants of the victims of alcoholic insanity any of the delusions and hallucinations which characterize the disruption of brain tissue. We find a brain unaffected by disease, which functions an inferior, but stable and systematized mental life, and which is one and unchangeable throughout the physical existence. We find also the blunted or absent moral sensibilities; blunted or absent, because the structure of the brain upon which their acuteness would depend, has been impaired by the ravages of disease in ancestry. We do not here expect to see any changes in the disposition or the moral nature, and we can now account for the production and existence of a class of men who can contrive crime without compunction, execute crime without pity, and contemplate its effects without remorse.

The question now arises: Is this moral insanity? Unlike the moral insanity which attended the disintegration of the brain in chronic alcoholism, the criminal nature cannot claim the presence of brain disease. And whatever exceptional cases may occasionally arouse doubt as to the presence of moral insanity in the criminal, it will always be a point against such an hypothesis, that when the subject is not himself the victim of brain disintegration, when he is simply a descendant of one so affected, an important element of insanity is wanting, namely, the presence of actual brain disease; and we have here, without doubt, most commonly the criminal rather than the lunatic.

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Prof. F. W. Beneke on Constitution and Constitutional Diseases of Men.

BY DR. HERMAN P. V. PETERSHAUSEN.

II.—ANOMALIES OF CONSTITUTION.

EVERY deviation from the size of the anatomical apparatuses of the human machinery as fixed for the normal organism of different ages, is termed an anomaly of constitution. Should these deviations not surpass a certain measure, they may be compensated for in some way and will then scarcely be recognized. But when a certain deviation assumes a higher degree, compensation will be impossible and the disturbance in the work of the organism is to be recognized now as a constitutional disease.

Prof. Beneke excluded the nervous system from his researches as he had *not made hitherto* measurement of its elements that could be of any value for his purpose. He of course admits that for a number of phenomena the conditions of the nerves must be made answerable. He further declares that general debility inherited or acquired may depend upon measurable deviations from the average size of one or more parts of the nervous system.

In general the anomalies of constitution may be separated into two classes. Those of the one class embrace cases in which there is such a combination of the relative sizes of the different organs that the medium work done by the whole machinery is less than normal, while such is more than normal in cases of the other class. It is provided for both classes that the food causes no disturbance, but agrees in quality and quantity with the individual requirements. With regard to the formation of tissues, those combinations favor in the one case the inclination of the organism towards hypoplasia, in the other towards hyperplasia.

As to the first combination we find in the typical cases a relatively small heart, narrow arterial vessels, large lungs, small liver and short, small intestines. Upon this base there develop the so-called erethic forms of scrofulous diseases, the osteomyelitis of childhood, the scrofulous (cheesy) phthic diseases of puberty, and chronic anæmia. The individuals remain slender and the development of puberty is retarded with them.

Upon the ground of the second combination there develop a number of different rhachitic diseases, the hyperplasia of connective tissue, obesity, atheromatous degeneration of arteries, psoriasis, cancer. The hyperplasia of connective tissue is either a general or a local one. If present in the lungs it results in bronchiectatic phthisis (cirrhosis), or in the liver and kidneys to the interstitial growth and its sequela, or in the membranes of the brain to pachymeningitis, or in the central portion of the nervous system to sclerosis, and in the arteries to thickenings in their walls. A portion of these changes have been hitherto known as cirrhotic changes. The professor proposes the name *fibromatosis* as better suited for them.

Between the mentioned types of anomalies of constitution we have constitutions that are normal, or nearly so, with regard to relative sizes of organs. When individuals gifted with such constitutions get sick, they are attacked with diseases in whose genesis the relative sizes of organs play no part. This is the case in articular rheumatism and miliary tuberculosis, two diseases that have been frequently considered as constitutional. Though in a number of cases of these diseases there may be found an alteration of the chemical constitution of the individual, there will be found an infection in others, but in none an anatomical anomaly of constitution, except the nervous system, that has not been studied in relation with this question.

With regard to the condition of the capacity of the intestines in different diseases, the author obtained by the analysis of 87 cases as result that patients suffering from phthisis and similar diseases have much shorter intestines than those that die from diseases in which hyperplasia (carcinoma, lymphosarcoma, obesity) played a part. The healthy ones, *i. e.*, those that did not die from such diseases, stood between these two classes.

The question, whether in case of the presence of constitutional deviation from normal sizes of organs there will always develop a corresponding disease, must be answered in the negative. We have it in our hands to carry the different constitutions after a careful study happily through life. Only in rare cases there may be developed the anomalies of constitution to such a high degree that it might become impossible for the healing art to stop the development of the corresponding disease.

When we have to treat a child with relatively short intestines, narrow arteries, large lungs, small liver and a hitherto not properly studied state of the nervous apparatus that is called general debility, we might save such child and even induce its relatively good development. We have to prescribe the proper quality and quantity of a very absorbable food, a well superintended gymnastic, frictions with cool water, some wine, a pure and well-tempered air (sea shore), etc. By the gymnastic we develop the heart and respiratory muscles, in consequence whereof obstacles to the circulation in the lungs might be better surmounted. The fresh air of the sea shore will stimulate the innervation. The stronger growth of the heart will promote the development of the caliber of the arteries.

When on the other hand a child comes under our care with relatively long intestines, well developed heart, wide arteries, small lungs, large or very active liver, this child will probably during childhood be a picture of health. We find that it has a strong bony frame, great muscular force, a well developed adipose tissue, a healthy color, etc. The dangers that may arise in such a case are already above pointed out. We cannot make the arteries narrower, the lungs larger, or the intestines shorter. But we may restrict by a proper diet the process of absorption and assimilation as well as the too abundant formation of blood. The food must not contain much of albuminous substances or phosphates nor may alcoholic beverages be allowed. Fresh vegetables will do these patients good as well as a certain amount of bodily exertion. Mineral waters (chlor. sod.) continually used will be found useful to limit the formation of an excess of plastie matter in case this can not be accomplished by a mere regulation of the diet alone. Should such patients not follow the given advice, they will be attacked either with obesity or atheromatous degeneration in the arteries, or arthritis urica, or carcinoma and interstitial growth of connective tissue in the most important organs (pachymeningitis, interstitial induration of lungs, interstitial hepatitis and nephritis, in short all forms of fibromatosis).

After this explanation it will hardly be necessary to explain for the thinking physician why one child soon gets anæmic, lean and scrofulous when fed on potatoes and substances that lack material for the formation of hæmoglobine, while another child may get along well under the same conditions; or, why, in consequence of an injury, the one child suffers from coxitis, or spondylitis, or osteomyelitis, while the other is not the least affected. Or, why in the one case a continued local irritation produces carcinoma, in the other not.

Though in general we may classify the anomalies of constitution into two different orders, it will be apparent that numerous combinations of the relative sizes of organs may occur. It will, of course, still take years of researches and study to get a precise insight into all these different combinations.

Meanwhile, the author calls attention to the fact that of two individuals of the same age, similar habitus, and suffering under the same disease, the one dies, the other recovers, though both had been treated in the same manner. Every experienced physician knows of examples that may illustrate this fact, occurring in typhoid fever, pneumonia, puerperal fever, etc. As a frequent cause of death from these diseases there was observed by the doctor a small heart combined with narrow arteries in individuals otherwise well constructed, while individuals possessed of a better developed heart and wide arteries recovered. Especially in typhoid fever—the author dissected 32 corpses of typhoid patients—it was found that a relative smallness of the heart and narrowness of the arteries are dangerous complements and a frequent cause of death; for, the smaller the heart the earlier occurs its paralysis. As the most cases of typhoid fever happen to attack individuals between 16 and 25 years of age and as till the 20th year the arteries are relatively narrower than at any other period during the whole life, the great danger for the patient will be obvious. In other febrile diseases (peritonitis, etc.) the deficient anatomical structure will lead to the same result. By the treatment there must, therefore, be prevented the early paralysis of the heart.

A relatively large heart and large arteries with relatively small lungs are frequently found in rhachitic children, as was revealed by the dissection of 38 corpses of such. Especially the large vessels of the neck are in such children abnormously wide, and we find these latter in consequence thereof *at an early period already* mentally far developed. When they are happily brought through the disease, they become often vigorous in later periods of life. Constitutional rhachitis must of course, not be confounded with rhachitis pauperum, which depends upon a want of lime in the organism.

The following anatomical base was observed by the author for the carcinomatous constitution: Relatively long intestines, having a great capacity, an active liver, relatively small lungs, large heart, wide arteries, a strong bony frame, well developed muscles and adipose tissue. When a person gifted with this constitution lives on too much albuminates and phosphates, the inclination to hyperplastic formation is supported. The large intestines favor absorption, the biliary acids and cholesterin are formed abundantly, the small lungs do not duly promote the process of oxydation and the wide arteries contain a large quantity of blood. By all these circumstances there is favored the formation of carcinomatous tissue. Now, when the diet of such an individual is kept poor in albumen and phosphates, but rich in vegetable salts, there will be suppressed the luxuriant formation of tissues as well as the abundant secretion of bile, and the absorption in the intestines will be modified. It is an important fact that carcinoma rarely develops in herbivorous animals.

For the scrofulous, phthisic constitution the author found short intestines, a small liver often fatty degenerated, a relatively small heart, narrow vessels, besides a wide pulmonalis and large lungs. These individuals are rarely fat, have a weak bony frame and weak muscles, suffer under a weakness of the nervous system, causing either oxaluria or phosphaturia and are the more subject to an insufficient absorption of food the more the action of the liver is disturbed and the supply of cholesterin to the nervous system is deficient. For such patients is necessary a light, digestible food not too poor and not too rich in albuminates and phosphates.

The question if anomalies of constitution may be inherited is answered by the author in the affirmative, as heredity of anatomical peculiarities is a law in nature. But only the anatomical substratum of constitution is inherited, not the peculiar form of disease resulting therefrom. The development of the latter depends upon other conditions as will appear obvious from explanations made in the previous paragraphs.

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Insanity.*

BY JAS. G. KIERNAN, M. D., CHICAGO, ILL.

LECTURE I.—DEFINITIONS.

THE subject of insanity is one of the most neglected and at the same time most important topics which confront the general practitioner. To him it should be a special study. He is the first adviser of any afflicted family, and is often the only judge called on to determine whether an invalid is capable of disposing of his property and of doing full justice to all who have claims upon his bounty.

Upon the general practitioner must often rest the responsibility of many crimes, for by his advice a dangerous lunatic is sent to an asylum or permitted to roam the streets. Had the advice of a general practitioner, given in the year 1877, been followed respecting the incarceration of a lunatic, the crime which lately shocked the country would have never occurred. The general subject of psychiatry, as the science which deals with the mental diseases is termed, has been long regarded as one of the least practical branches of medicine. In but few medical schools is it taught, and in most of these only by a medical politician who has become superintendent of an asylum for the insane.

Dogberry says reading and writing come by nature, and a large number of physicians seem to be of opinion that a knowledge of psychiatry comes by intuition. Not unfrequently does it happen that a general practitioner who would shrink from giving an expert opinion on ophthalmology, a surgeon who would avoid an expert opinion of an obscure chest affection, a gynæcologist who would refrain from claiming to be a dermatologist, all rush to court to express opinions on a very difficult psychiatrical problem. To such an extreme has this been carried that after one hour's coaching by a lawyer, a gynæcologist has declared Ray, Rush, Brigham and Spitzka, in America, Tuke, Conolly and Sankey, in England, Esquirol, Marcè and Morel in France, Krafft-Ebing, Griesenger and Meynert in Germany and Austria, ignorami because they, after years of patient study, believed that, scientifically speaking, there is a moral insanity.

Psychiatry like the other medical sciences must be studied. No man can be born a full fledged alienist.

Psychiatry has, generally speaking, two aspects: a clinical, and a forensic or legal aspect. The general practitioner has to meet both. He must deal with mental as with other diseases, and he must not unfrequently defend his diagnosis and prognosis in the courts. The first question often asked there is a definition of insanity, and in the definition of no term in science is greater absurdity shown. Sheppard* has defined insanity as "a disease of the neurine batteries of the brain." He advises this as a puzzler to the lawyers, but the use of technical terms does not puzzle an educated lawyer and is too often a means in his hands of rendering the physician ridiculous on cross-examination. Avoid puzzling lawyers, more especially when the puzzling definition is not scientifically correct. Insanity is not a disease of the neurine batteries of the brain; it may be a symptom, or a result, or a cause of brain disease, but it is never a disease of the brain. Dr. A. E. Macdonald† defined insanity as "that condition of mind where a man does not do his duty to his God, his neighbors and himself." As Dr. Macdonald pronounced Guiteau sane, it is obvious that Guiteau in shooting Garfield performed, in Dr. Macdonald's opinion, "his duty to his God, his neighbors and himself." I cite these two as specimens of absurd definitions. Absurd as is the first, a Missouri expert‡ improved on it by defining insanity as a disease of the "neuril batteries of the brain."

A definition of insanity must take into account all circumstances, and it will be obvious at the first glance that what is an evidence of insanity in one case is no evidence in another.

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*A series of lectures delivered before the practitioners' course of Chicago Medical College.

* Lectures on Madness.

† Chicago Medical Review, p. 335, Volume VI.

‡ St. Louis Clinical Record, 1879.

A plantation negro who believes in witchery is not necessarily insane, but an educated gentleman who complains of persecution by witchcraft certainly is. Gooche, Combe and Ray* say that insanity is "a prolonged departure, without adequate external cause, from the state of feeling and modes of thought usual to the individual." This is objectionable, since, in many instances, we do not know what were the states of feeling and modes of thought natural to the individual. It involves also the idea of change of character which cannot be demonstrated in many cases, and the occurrence of it is denied by many of the best authorities. Hughes† says that "Insanity, whether acute or chronic, is such a mental change in the individual, resulting from cerebral disease, as causes him to act not in harmony with his natural self and surroundings." For the reasons already cited this definition is objectionable, and also because insanity does not always arise from cerebral disease, but very frequently from cerebral malformation ; a teratological, not a pathological, defect. Charles Mercier** says that "Insanity is a failure in the process of adjustment of the organism to its environment." Hughlings Jackson‡ says "Insanity is the loss of the acquired relation of man to his surroundings." These are somewhat too concise and ambiguous. An occasional criminal could very well meet the requirement of these definitions. In justice to Hughlings Jackson the fact should be mentioned that by the term "man" he does not mean, when speaking of acquired relations, the individual but the race. The race has acquired these relations ; it is the individual who loses them by reason of insanity. Dr. E. C. Spitzka§ gives the following definition : "Insanity is either the inability of the individual to correctly register impressions and experiences in sufficient number to serve as rational guides to rational behavior in accordance with the individual's age, time and circumstances, or, such impressions and experiences being correctly accumulated in sufficient number, a failure to coördinate them and thereon to prove logical conclusions, or any gross mental incongruity with the individual's surroundings in the shape of subjective manifestations of cerebral disease or defect, excluding the phenomena of sleep, trance, somnambulism, the ordinary manifestations of the neuroses, such as epilepsy and hysteria, febrile delirium, coma, acute intoxications, and the ordinary immediate results of nervous shock and injury." This is by far the best definition I have met with. It is, however, somewhat prolix and calculated to induce a protracted cross-examination when given on the witness stand. I prefer, therefore, a definition* which I have used for some years, which is as follows: "Insanity is a morbid mental condition produced by disease or malformation of the brain which perverts the mental relations of an individual to his surroundings, or to what from his birth, education and circumstances might be expected to be such surroundings." I have found that this definition impresses itself very quickly on the average legal and lay mind.

Besides the definition of insanity the physician is often required to use and define certain terms. They, as a rule, are used very loosely; and this is much to be regretted, since by their improper use an otherwise valuable case report is spoiled. The terms in question are delusion, hallucination and illusion. As used in connection with the insane the two latter terms are really descriptive of phenomena coming under the first head. Hallucinations and illusions relate to the special senses. When accepted as true, they are really delusions. For sake of convenience, however, in speaking of hallucinations and illusions of the insane, the latter terms only are used, it being assumed that the individual accepts the hallucinatory or illusional phenomena as really existing. A delusion is a firmly fixed baseless belief whose inherent falsity is capable of demonstration. An† hallucination is a subjective perception of an object as a real presence without a real presence to justify that preception. Stress is especially to be laid upon the clause "as a real presence," for, if this be omitted, the definition would cover active reproductions of the memory which are subjective perceptions without a real presence to justify them.

An illusion differs from an hallucination in that it is a subjective perception of an object in characters which it does not possess, but with a real presence to justify that perception. A man, for example, claims to have heard people denouncing him when this does not occur; he has had an aural hallucination. If, on the other hand, he seeing a marble roll across the floor, says it is a devil, he has had a visual illusion. Upon these various phenomena turn many of the actions of the insane and in the next lecture I shall consider them more in detail.

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*Medical Jurisprudence of Insanity.

†Alienist and Neurologist, July, 1882, p. 477.

**Journal of Mental Science, January, 1882.

‡Dublin Journal of Medical Science, May, 1882.

§Chicago Medical Review, Vol. VI., p. 322.

*Gaillard's Medical Journal, November, 1880.

†E. C. Spitzka, Chicago Medical Review, vol. iv., page 339.

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Fecundation.

BY HENRY G. LANDIS, M. D., PROF. OF OBSTETRICS IN STARLING MEDICAL COLLEGE.

OUR knowledge of the mode of fecundation of the human ovum must of necessity be mainly theoretical. We cannot observe the process, but must be content to reason from clinical data and from analogy. Nevertheless it is a matter of great practical importance that we should know whether the spermatozoa contribute any *matter* to the ovum or whether they simply convey or generate a *mode of force* in the act of fecundation. For instance, if a syphilitic father conveys to the ovum syphilitic matter in the spermatozoa, he may syphilize his offspring without necessarily infecting the mother. But if not an atom of matter passes from the spermatozoa to the ovum, but only that mode of force which we call life, it is inconceivable that a child can be syphilized without previous infection of its mother.

In favor of the material view, we have the fact that the ova of some animals are provided with a micropyle through which the spermatozoa may be seen to enter the ovum. Also in some ova which have no micropyle the same entrance may be observed. This is an important fact, but its importance would be greater if the method of reproduction was uniform in the animal kingdom, which is not the case. Some dispense with fecundation altogether, multiplying by simple fission. In some a simple act of fecundation suffices for many generations, as in the Parthenogenesis of the Aphis.

Also, there are ova in which the actual entrance of the spermatozoa into the ovum has not been demonstrated, although they have been observed upon its periphery. These circumstances are sufficient only to make us pause before we rest content with any theory. Before stating our facts it may be well to state the non-material hypothesis which with some modification finds its best expression in the words of Harvey: "*Videtur sane femina, post tactum in coitu spermaticum, eodem modo affici, nulloque sensibile corporeo agente prolifica fieri, quo ferrum a magnete tactum hujus vi dotatur, aliaque ferramenta ad se allicit.*" Or, adapting the thought to our more exact acquaintance with the facts, the ovum when approached by the spermatozoa is invested with the property (not before possessed) of attracting to it particles like itself—that is, albuminous fluids, etc. Harvey indeed supposed that the quasi-magnetic force impressed the whole woman, and certainly the celebrated case of Lord Morton's mare looks in that direction. In this case the mare produced a hybrid with a quagga, and on several successive occasions its colts sired by Arabian stallions were marked with stripes, showing the permanent impression which either the matter or force of the quagga had made upon the whole material organism. It is not by this theory assumed that life force is magnetism, but simply that the life force can be communicated to the ovum within a certain zone of influence, whether a membrane intervenes or not, and that actual contact is not necessary. The main fact upon which this rests and which seems to demand such a solution, is the occurrence of ovarian pregnancy. With this theory there is no difficulty in the fecundation of an ovum while still in the ovisac, by spermatozoa collected upon the ovary. Without it, we must assume that in each instance there was an opening large enough for spermatozoa to enter, but not large enough to allow the ovum an exit. Certain experiments may also have a bearing upon the question. Darwin found that a few grains of pollen placed upon the pistil of a many seeded flower would not fertilize a single seed. A large amount fertilized all. Others have shown that a few spermatozoa placed upon a mass of frog spawn fail to fertilize a single ovum. It would therefore appear that the cumulative action of a number of battery-cells (to speak in a metaphor) was necessary to cause fecundation. By way of negative evidence, we have the undoubted fact that even where the spermatozoa enter the ovum they rapidly disintegrate and form no structural part in its development. With the present paucity of facts, the philosophical attitude is to hold the judgment in suspense, but each one will take one side or the other as a working hypothesis to aid him in the study of heredity, according as his mind is influenced by the evidence already in.

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Mushroom Poisoning.

BY DR. GEO. C. FARM, KELLY'S ISLAND, O.

IN August last four persons of the family of Mr. Carpenter, of Kelly's Island, O., were poisoned from eating mushrooms. Between one and two hours after dinner all were taken sick with vomiting and purging. Two hours later chills came on, followed by great depression, and in one of the patients partial convulsions. In the child, three years old, the active symptoms continued four hours; in two of the others, eight hours. Prostration confined the fourth to bed two days.

The child received no treatment save brandy. The others were given an emetic of sulphate of zinc, and later, large quantities of brandy.

In the meal from which poisoning ensued the mushrooms were baked in butter. They had previously eaten three meals of the same lot of mushrooms, cooked in milk. The cook took a single taste of the first meal. It vomited and purged her. In cooking the two following meals she did not taste, but the same symptoms were produced. She was sick an hour or so and took no medicine.

Proceedings of Societies.

Health in Michigan.

For the week ending Sept. 16, 1882, the reports indicate that remittent fever considerably increased, and that diarrhœa, bronchitis, cholera infantum, cholera morbus, neuralgia and whooping-cough increased in area of prevalence.

At the State Capitol, during the week ending Sept. 16, the prevailing winds were northeast; and, compared with the preceding week, the average temperature was lower, the average absolute and the average relative humidity slightly less, the average day ozone the same, and the average night ozone considerably more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Sept. 16, and since, at 20 places, scarlet fever at 8 places, measles at 2 places, and small-pox at 2 places, as follows: In Berlin township, Ionia Co. (convalescents), Sept. 12; at Ionia, Sept. 18.

Concerning the incubation period of diphtheria, Dr. McColl, of Lapeer, wrote Sept. 16, that on Friday a boy visited where there was diphtheria, and on the next Monday he came down with the disease; and on Tuesday following another case came down in his family.

For the week ending Sept. 23, 1882, the reports indicate that influenza increased, that cholera morbus considerably descreased, and that neuralgia, dysentery, cholera infantum, diarrhœa, diphtheria, whooping-cough and intermittent fever decreased in area of prevalence.

At the State Capital, during the week ending Sept. 23, the prevailing winds were southwest, and, compared with the preceding week, the average temperature was lower, the average absolute and the average relative humidity slightly more, the average day ozone the same, and the average night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Sept. 23, and since, at 21 places; scarlet fever at 8 places, and measles at one place. Small-pox was not reported from any locality in Michigan.

For the week ending Sept. 30, 1882, the reports indicate that bronchitis considerably increased, that puerperal fever, scarlet fever, whooping-cough and membranous croup increased, and that dysentery decreased in area of prevalence.

Compared with the average of reports for the month of September in the preceding five years, all diseases named in this report except puerperal fever and cerebro-spinal meningitis, were less widely prevalent during September, 1882, than has been usual during September; and only bronchitis and puerperal fever were noticably more widely prevalent during the week ending Sept. 30, 1882, than has been usual.

At the State Capital, during the week ending Sept. 30, the prevailing winds were northeast, and, compared with the preceding week, the average temperature was considerably lower, the average relative humidity was more, the average absolute humidity and the average day and night ozone were less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Sept. 30, and since, at 23 places; scarlet fever at 10 places, and measles at 4 places. A case of small-pox was reported at Grand Rapids, Oct. 3.

For the week ending Oct. 7, 1882, the reports indicate that erysipelas increased, and that cholera infantum, cholera morbus, bronchitis and influenza, decreased in area of prevalence.

Compared with the average of reports for the months of October in the preceding five years, all diseases named in this report except puerperal fever were less widely prevalent during the week ending Oct. 7, 1882, than usual.

At the state capital, during the week ending Oct. 7, the prevailing winds were south;

and, compared with the preceding week, the average temperature was higher, the average absolute and the average relative humidity, and the average day and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Oct. 7, and since, at twenty places, scarlet fever at 11 places, and measles at one place. One case of small-pox was reported at Grand Rapids, Oct. 9.

For the week ending Oct. 14, 1882, the reports indicate that consumption, influenza, and neuralgia increased, and that diarrhœ, pneumonia, erysipelas, and puerperal fever decreased in area of prevalence.

Compared with the average of reports for the months of October in the preceding five years, all diseases named in this report except small-pox were less widely prevalent during the week ending Oct. 14, 1882, than has been usual.

At the state capital, during the week ending Oct. 14, the prevailing winds were north-east and south-east; and, compared with the preceding week, the average temperature was lower, the average absolute and average relative humidity less, the average day ozone the same, and the average night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending October 14, and since, at 23 places, scarlet fever at 14 places, measles at 2 places, and small-pox at 4 places, as follows: in Orange and Ionia townships, Ionia Co., October 13; at Grand Rapids, October 14; at Niles (one case), October 19.

Henry B. Baker,
Secretary.
Lansing, Oct. 19, 1882. Per J. K. H.

[Reported for the Detroit Lancet.]

Michigan State Board of Health

The regular quarterly meeting of this board was held Oct. 10, 1882, at Lansing, there being present Hon. Le Roy Parker, of Flint, president; Rev. D. C. Jacokes, of Pontiac; Dr. H. F. Lyster, of Detroit; Dr. J. H. Kellogg, of Battle Creek; Dr. A. Hazlewood, of Grand Rapids, and Dr. Henry B. Baker, secretary.

The president read his annual address, reviewing the work of the board, and suggesting work for the future in the line of securing the introduction of text-books on hygiene in the schools; greater attention by localities to the pay of health officers, and some amendments to the public health laws, etc.

The secretary presented his quarterly report of work in the office, and annual report of property for the fiscal year ending Sept. 30, 1882.

The secretary presented a communication relative to wounds from toy-pistols, describing the pistols and the nature of the cartridges as determined by analyses, also a report of several cases of lockjaw and death following toy-pistol wounds. He also presented a resumè of the work of other state boards of health. He also presented the statement that immigrant-inspection service in this state had been continued through October on a reduced scale, impairing its efficiency, and he was requested to urge, on behalf of this board, the continuation of the service through the winter with the same force as in the past summer, because this board believes there is great danger that small-pox will be introduced by immigrants from the lower Canadian provinces.

A committee was appointed, on request of the warden of the State House of Correction and Reformatory at Ionia, to examine the plans of desired buildings at that institution.

Dr. Lyster reported in preparation a paper on the present knowledge of typhoid fever, and he was requested to prepare his paper in the form of a document for publication in the report, and for distribution. In this connection, Dr. Baker presented two diagrams showing for the years 1877-1880 the relations of deaths from that disease to population, from which it appears that the common opinion among physicians, that this disease prevails mostly between the ages of 18 and 35, and that there is little danger after 40, is not sustained by facts. A greater proportion have typhoid fever at the ages between 60 and 80 than at any other age in life.

Dr. Lyster and Mr. Parker presented, and they were requested to complete, a report on the recent epidemic of small-pox at Flint, and they were requested to include Dr. Mulheron's report of the same outbreak.

The secretary was authorized to issue the circular to correspondents relative to diseases in Michigan in 1882, and the circulars and blank forms for annual reports of health officers and of clerks of local boards of health.

The subject of compulsory registration of plumbers was referred to Mr. Parker and Dr. Lyster for the purpose of bringing it before the legislature.

The committee on sanitary conventions was authorized to make arrangements for a convention at Muskegon about the last of November or first week in December.

The secretary was authorized to purchase a Thomson's quadrant electrometer, and by means of it to enter upon the observation of atmospheric electricity.

Dr. Kellogg was requested to prepare a paper on physical culture.

Mr. Parker presented a proposed bill making it a criminal offence to communicate a contagious disease, and it was ordered published in the annual report for the purpose of bringing it before the legislature.

Dr. Baker reported that he had been informed of the suspicious illness of some cattle at the State Fair in Jackson, and that other cattle which had been exposed had been taken to the fair at Grand Rapids. On his information Dr. Murray, Secretary of the State Cattle Commission, had investigated the subject, and believed the disease to be Texas cattle disease.

In Detroit, it was stated, it was proposed to erect a "flame-ventilated" small-pox hospital as proposed by Dr. Wight, the health officer. Members questioned the practicability of the plan, and it was referred to a committee.

A committee consisting of Mr. Parker and Rev. Mr. Jacokes was appointed on a plan for the regulation of medical practice.

Dr. Kellogg suggested some action by the board relative to having sanitary science taught in Michigan colleges.

Mr. Parker presented a report of the meeting of the American Social Science Association, presenting abstracts of the several papers on health subjects.

After transacting routine business the board adjourned. The next regular meeting will be on January 9, 1883.

Correspondence.

Letter from Dr. Henry A. Cleland.

I HAVE just been perusing the report of the transactions of the Detroit Academy of Medicine of March 7th, as contained in your October issue, and, in reviewing the remarks attributed to me by the reporter, I am left in a condition of perplexity bordering on dementia. Now, my dear doctor, you have known me intimateiy for many years and can vouch, doubtless, for my perfect sobriety. I can say honestly that I never was drunk in my life and yet the report of my "talk" on that occasion resembles the drivel of a drunken idiot more than anything I can imagine. I am aware that as an orator I am not a success and never expect to be; yet, I am certain that I never gave utterance to such a rhapsody of nonsense as the reporter has credited me with. I submit herewith a correct report of the sense of my remarks on that occasion, which I trust you may find room for in your next issue.

My experience is similar to Dr. Andrews'. I can call to mind five or six instances where it was necessary to produce abortion or bring on premature labor in order to insure the mother's safety. One case pertinently presents itself to my mind.

A number of years ago, when Dr. R. Inglis was living, I saw with him, in consultation, the following case: The patient was pregnant about six months. A general dropsical condition had, within a few weeks, developed itself, and the accumulated fluid in the abdominal and thoracic cavities was so great as to seriously embarrass respiration and impede circulation. Death seemed inevitable from these causes. Four years previously she had gone through a similar experience, but had recovered after the birth of her babe, which she was at this time able to carry to full term. On this present occasion her symptoms were so urgent that immediate relief was imperative, and judging that her dropsical condition might be the result of pressure from the pregnant uterus, it was decided to induce premature labor, which was accordingly done.

The dropsical symptoms soon after disappeared and she regained a fair degree of health, which, however, did not last. Subsequently the dropsy recurred accompanied with uræmia, from which she died. Post mortem section revealed contracted kidney.

The reporter then makes me say: "The second case was the same woman who had two successive cases of pregnancy; both resulted in the death of the child, etc" I am in a maze regarding what he means here which is the more singular as he makes me remark, "that was the most successful case of my experience." The other case reported was to illustrate the care which should be observed in advising the induction of abortion or premature labor.

Two years ago last January I took care of a case of labor which for many weeks previously had been anticipated with anxiety by the friends of the patient. Dr. Spaulding knew the lady as in company with her regular medical attendant, in her first confinement, we had to resort to craniotomy. When she again became pregnant it was advised, in view of her previous suffering and of her then feeble health, that she should submit to an abortion, and efforts in this direction were accordingly made, which, happily proved unsuccessful. She accordingly went to full term.

When labor was instituted her doctor being out of town, I took care of her and was detained but half an hour, the child being a well developed ten pound boy equal in weight to her first child. What the dystociac cause was in her first confinement I am unable to say. We then thought it contracted pelvis, but as the presentations in both instances were similar and the head about the same size this could not have been the cause.

Here our reporter again begins to maunder as if he had taken another draw, but I have already encroached too much on your valuable space and as the remainder of my remarks on that occasion were unimportant. I will conclude.

Respectfully Yours,
HENRY A. CLELAND, M. D.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

How Shall the People be Protected from Charlatanism?

The answers to this question are various according to the education and standpoint of the questioner. The "proper education of the medical profession," says one, "would remedy this evil." But such education does not seem to arrive in spite of all the efforts that have been put forth. Another says "that legal enactments" are the only means by which the tide of evil from nostrums can be stemmed. These legal safe guards may relate either to the medical profession itself so as to render its members intellectually competent to practice medicine, or it may relate to the regulation and inspection of the nostrums offered for sale or to both. Another tells us that the cure of charlatanism can only come from the "proper education of the masses of the people," so that they shall be able to comprehend the nature of nostrums and the value of a scientifically educated medical man.

Just now, as the season for the Legislative sessions draws nigh we begin to hear the discussions of such as believe in legal interference in the matter of the practice of medicine. These discussions are undoubtedly a source of good, in that they educate the profession and the people somewhat in reference to these matters. But aside from such educating power these laws have, on the whole, in our judgment proved harmful to profession and people alike. At this time we simply desire to call attention to some remarks made by Dr. A. B. Prescott, of Ann Arbor, in a paper upon nostrums, published in the last volume of the reports of the Michigan State Board of Health. He presents facts showing that "the use of nostrums is a source of positive injury to the public health and a vitiating and wasteful absurdity." Among the measures suggested for their removal he says: "In the first place begin the work of common sense in the public schools. Teach physiology, the structure of the vital organism, and the cause and effect of health and disease. Teach the rudiments of chemistry and botany if you will, but let the next generation know that it is the body and not the disease that is to be treated, and that universal panaceas are relics of superstition. Cultivate a stalwart physical independence, and a scrupulous prudence in the treatment of bodily infirmities. Security from charlatanism is dependent upon the intelligence of the people. In view of the indiscretion of this generation, it seems to be high time to look to the training of the next. This is the surest measure, aye, and the quickest, that can be adopted." To all of this we say amen. Farther, the same remarks apply to the protection of the people against quack doctors. Teach a man how to recognize good butter from poor, and you need make no law regulating the sale of butter. He will be an effective law for his own protection. So in all other things, doctors included.

A part of this education will come from instructing the people in the real composition of the several nostrums. Lastly, he suggests that each nostrum contain upon its label, not the diseases for which its proprietor recommends it, but its exact composition. Let all secret remedies be contraband to the trade. We suggest as a further means of educating the people that every physician refuse to prescribe any copyrighted medicine as well as any popular nostrum. Let the people know that their physicians never prescribe any of this class of remedies and they will be decidedly less influenced by the myriads of quack medicine advertisements everywhere set before them. The complete cure of charlatanism will never be accomplished till rascality is eliminated from the race. The best that can be hoped for under existing circumstances is the elimination of some of its most offensive features. It is less an intellectual ignorance than a moral crookedness.

The Rights and Duties of Delegates.

This question has incidentally come to the front in a neighboring state. We had supposed that a delegate was expected to act for the society he represented, and in so far as he was able to determine, exactly as the society would have acted were it present as a whole. It has always seemed to us that any variation from this course of action on the part of a delegate was traitorous and dishonest. We have thought also that societies had the right to specially instruct their delegates in any particular matter that they knew would be brought before the general meeting. Of course if the delegate chooses to act otherwise and act against the known wishes of the society which he is chosen to represent, the only course left for the society is to repudiate the action of their delegate and no longer choose to entrust him with their interests. No doubt it will be bound by the action of the delegate, until such time as it shall be able to reverse action by an honest delegate.

With such views as to the obligations of delegates, we are astonished that so wise a man as Dr. A. Jacobi, and such an able journal as the *Medical Record*, should recommend that delegates should pay no heed to the wishes of the county societies which shall send them to the next meeting of the New York Medical society. The *Record* thinks that no delegate will forego his personal rights at the dictation of the society he is chosen to represent. It claims that each delegate has such a right as will permit him to violate the trust imposed in him by the society that he has engaged to represent. It is vain to say that the several societies do not fully understand the question of ethics as involved in the action taken last winter. When thus understanding it and when they select a delegate who accepts the position, they can expect nothing but that their wishes will be carried out by their delegate's voice and votes in the convention. The advice of the eminent gentlemen to the New York county delegates seems to us in the highest degree dishonorable. Evidently they do not think that the county medical societies of New York are giving their delegates proper instructions, since almost all thus far heard from have very positively signified their repudiation of the ethical code inaugurated at the last meeting. If the matter related to politics, the natural inference would be that while the leaders of the New York State society felt able to deal with individual delegates after they had manipulated them at Albany, they were impotent to manipulate the several societies that really constitute the profession of the state. But of course, among medical men, in a matter such as the one before the profession of the Empire State, bribery or bulldozing of the delegates is impossible. We still believe that no honorable man will violate the instructions of the society sending him. His course is plain. If he does not think the wishes of his society are such as he can honestly endorse, he will at once resign his appointment, in order that the society may appoint such a one as will execute their will. In this manner all have perfect freedom, to act, and speak, and think, and vote, as seems to them wise. The question in all possible relations has been discussed. What now remains is the voting. Let this be done fairly by all the county societies and we shall know the status of the medical profession of New York.

Fothergill on the Proposed Journal of the American Medical Association.

Some time since we quoted from this gentleman some statements of views largely entertained in Great Britain uncomplimentary to the management of the *British Medical Journal.* Since it is wise to take in all sides of every enterprise, we now quote other suggestions from the same source, as they are given in the *Medical Times.* The proposition of the American Medical Association to establish a journal fashioned after the *British Medical Journal* "is acceptable flattery to our editor and others who believe they have successfully carried on the affairs of the Association." But Dr. Fothergill says that these affairs are not carried on satisfactorily. Seen from the inside he says "it is seething with dissatisfaction. It is dissatisfied with the Association's relations to homœopaths, with reports of branch meeting being delayed and shoved into small type, with the constitution of the Journal Committee, with the constitution of the Parliamentary Bills Committee, with the term of office of the editor of the Journal, etc., etc., lots of other things. He calls attention to the fact that great pressure is brought to bear upon an editor of a great journal by a clique who desire to use him and the Journal for their own private purposes to the loss of the Association in general. Further, the editor having admitted ability and power naturally desires to exercise the same to advance his own purposes and powers irrespective of the real interests of the Association. He shows that "the Editor of the *British Medical Journal* is so connected with so many committees that almost nothing can move in the Association without his being on the pulse of the movement while as editor his word can be for or against anything as all are aware." Such a state of things may be wise or unwise but it is certainly an enormous one man power which is not relished by the outs of the British Association. As one instance he says the Editor of the *British Medical Journal* is also chairman of the Parliamentary Bills Committee whose object is to "watch all bills affecting medical interests before Parliament and take action to support or oppose them as they may be considered by the medical profession at large to advance or injure medical interests." This committee advocated the compulsory notification of all infectious diseases by the medical attendant, under the penalty of ten pounds for an act of omission. The committee even offered its services to sanitary authorities seeking acts with this model clause which was suggested by the report of the editor as chairman of the committee. A large number of the physicians thinking that the time has now come to act have united to resist further damage to the interests of the profession from this source. Compulsory notification of infectious diseases all agree to be proper, but the medical profession object to serving as instruments of the sanitary authorities.

Large numbers of them are very indignant that their editor aided in thus placing them in what they regard as a false position. After a full discussion pro and con at the late annual meeting it was generally decided that the "compulsion to notify should lie with the householder and not with the medical man." Thus the action of the Parliamentary bills committee was repudiated by the general Association. Other moves will undoubtedly follow and Dr. Fothergill says that if Prof. Sayre and those who think with him are open to a word of advice from one who has no other than good wishes for the medical profession in the United States, it would be to the effect that they will be wise in maintaining an attitude purely expectant at present and watching the course of events here attentively before they commit themselves to any positive action." In short he thinks it desirable to have it shown by experience that a large Association can retain a confessedly able editor as its servant. Can it so arrange matters that cliques shall not be able to use him and the journal for their personal aims? Such are some of the questions as yet unanswered. Dr. Fothergill thinks the American profession would be wiser to let the British Association make the demonstration before it ventures on experiments with a medical journal.

We surely hope that all these problems will so be solved as that the old Journal and the prospective new one may both become bulwarks of liberty and progress in all that pertains to professional good.

Memoranda.

In Switzerland five out of every thousand die from alcohol.

Pidoux died in Paris, September 4th. He was a co-worker with Trousseau.

Hildebrandt, the eminent teacher of gynæcology in Koningsberg, is dead.

The death of a workman from the handling of a Brush electric light wire is reported in New York.

Desmarres, for a long time one of the eminent oculists of Paris, died on August 22. He was born in 1810.

It is announced that the *Sanitarian* will, on the first of the year, appear as a weekly journal of 32 pages.

The late President of the American Medical Association, Dr. J. J. Woodward, has returned unbenefitted by his trip to Europe.

Dr. MacLean has begun a libel suit against the Detroit *Evening News* for $50,000. Damages are sought for supposed injuries to his moral character.

Lyman gives the number of deaths from chloroform as 368; those from ether, 27. Such seems to be the relative mortality from the use of the two anæsthetics.

During his six weeks' tour in America, Dr. Morrell Mackenzie, of London, England, has been the constant recipient of the hospitalities and courtesies of the medical profession.

The *Louisville Medical News* has passed into the editorial care of Drs. Lunsford P. Yandell, M. D., and L. S. McMurtry. We are sorry to miss the editorial pen of Dr. Holland, but are glad that he has chosen such able successors.

The annual report of the Commissioner of education of the United States shows that during the last decade the number of medical schools in the United States about doubled, and the number of students trebled. It gives the list of regular schools as 72; of eclectic schools, six; of homœopathic schools, 12.

The County Medical Societies of Broome, Franklin and Columbia, New York, are the latest to repudiate the New York code of ethics, and to instruct their delegates to vote for the return of the State Society to its former position.

The *Sanitary Engineer* announces that it has made arrangements by which it will hereafter publish regularly the most important facts formerly published by the National Board of Health in the bulletin of the board.

"Let there be no more vulgar spitting" is the latest dictum of science. For lo, said sputum contains the deadly bacillus tuberculosis when it comes from the mouth of one affected with phthisis pulmonalis.

The Rush Medical College, of Chicago, is said to have opened this term with a class of 470; the Chicago Medical College with 150, and the new College of Physicains and Surgeons of Chicago (fees one-half those of the other schools) with over 100 students.

The Michigan College of Medicine and the Detroit Medical College are both in active operation. The Detroit University Medical Department was advertised to operate, but times have not turned out as some of the gentlemen from abroad supposed they would.

William Keating has just been discharged from the Ward's Island insane asylum, where he has been confined as insane for the past two years. The case has been fully investigated by a commission appointed by the Supreme Court and a sheriff's jury. Two years of a life entirely sane spent in confinement with the insane. Some person has terribly blundered.

Dr. H. C. Wood, in the *Medical Times*, says that among the females of the Anglo-Saxon race, "large full eyes, with large drooping eyelashes, mark an hysterical temperament, and a neurotic element will enter into the diseases of such a person."

At the late medical congress at Seville, Spain, Dr. Robert said that the death rate of Madrid was 400 per 1000. This excessive death rate he ascribes to two factors—the want of the use of water, and poor alimentation. The Spaniards are afflicted with hydrophobia. There are thousands who have never washed since they were born.

Philadelphia publishes nearly as many medical journals as the whole of England, Ireland and Scotland. It would seem as if competition would be greater between the medical journals of Philadelphia than among those of Great Britain. Philadelphia contains half a million of people, Great Britain more than thirty millions.

The late Dr. D. C. Hauxhurst, of Battle Creek, Mich., was on the whole a very scientific man. But in some manner he was led to disbelieve in the utility of vaccination as a prophylactic against small-pox. It should be generally known that he died in Paris of small-pox—another victim to the anti-vaccination craze.

At its late annual meeting the Wayne County (Detroit) Medical Society presented Dr. Wm. Brodie with a silver soup bowl and re-elected him president for the coming year. The work of the society for the past year was very creditable and will no doubt be increased during the coming year.

It is said that the venereal wards of the Vienna Hospital make a strange impression upon the American who first visits them. Just before the physician's regular visit, the men lie upon their backs in bed, bare of all covering from their knees to their navels, ready for examination. Standing about with various articles of dressing stand five or six active women, waiting the commands of the doctor.

A new medical journal has been issued by Wm. Wood & Co., of New York. It is a monthly, devoted to cutaneous and venereal diseases. Each number will contain a colored lithograph and other illustrations cut on wood. It is edited by Drs. Piffard and Morrow. The first number, which lies before us, is a very elegant affair. Its price is $2.50 per year.

There has been a disturbance in the running of the Medical College of Virginia. For some reason the governor appointed a new Board of Visitors, thus displacing the old board. The old board claimed that the governor had no right to remove them. Hence they resisted the efforts made to obtain possession of the college, etc. The faculty sided with the old board, for which the new board were not at all grateful. The end of the whole matter had not been reached at latest accounts.

At the late International Congress of Hygiene, held at Geneva, Dr. Haltenhoff stated that in Europe one person in every thousand was blind. This gives about three hundred and thirty thousand blind in that country. Most of these could have been prevented. The blind of Europe cost society 100,000,000 francs annually. The same congress concluded that the contagiousness of phthisis was not such as to call for the disinfection and isolation of its victims.

The Louisville *Medical News* says: "The profession of the entire country has expressed in unqualified terms its views and purposes relative to the movement inaugurated by the New York specialists, and it only remains for the advocates of the new code to accept the situation gracefully or go out among the irregulars. One horn of this dilemma is inevitable."

A second Post-Graduate School has been opened in New York city. It will teach only clinical medicine and surgery. No didactic lectures given here. Its building is on Thirty-fourth street. It will give five sessions of six weeks each. Thirty-six clinical lessons will be given on each subject during each session. The faculty is composed of gentlemen connected with the several hospitals and clinics of New York, and not already engaged in teaching.

The late issue of the *Quarterly Journal of Inebriety* brings forth numerous facts to show that adversity is often a very active cause of inebriety. Also inebriety is a common sequel and physiological outgrowth of adversity. All moderate drinkers are practically inebriates in the early stages, and liable at any moment to develop extreme stages of this disease. Lastly, the use of alcohol in all cases of nerve and brain debility, either from mental or physical depression, is dangerons and liable to bring on inebriety.

At its annual meeting the Detroit Medical and Library Association elected Dr. Lauderdale president and Dr. Willard Chaney secretary. Dr. Chaney contributed to the funds of the society $70 during the past year besides paying his own expenses as secretary. All will admit that he has proved a veritable helpmate to the association. We learn that both societies are in a very prosperous condition, with brighter prospects for the future. We wish that Detroit had half a dozen working medical societies. Twenty members are sufficient for a good working society.

The use of tobacco has been prohibited at Phillips' Exeter Academy, New Hampshire, at United States Naval Academy at Annapolis and at the United States Military Academy at West Point. So says the Medical Surgical Academy. Good news, but then it is pretty sure that the boys smoke. We wish it could be prohibited in every school of every grade. To it modern observers attribute a large number of the ills that beset the young. The best method of stopping this habit is the intelligent persuasion of the young rather than the compulsion of them by arbitrary rules. One difficulty in persuading them lies in the fact that most doctors either smoke or chew, or both. To such the young often appeal in support of their use of tobacco.

The committee appointed to make a microscopic examination of Guiteau's brain conclude their report thus (*Medical News*): "Your committee have no hesitation whatever in affirming the existence of unquestionable evidence of decided chronic disease of the minute blood vessels in numerous minute diffused areas, accompanied by alterations of the cellular elements in the specimens of brain submitted for their examination. Whilst the lesions found were most marked in the corpus striatum and in the frontal region of the corpus striatum and in the frontal region of the cerebral cortex, yet they very diffusely pervaded all portions of the brain which the sections represented. They are of the opinion that all of the lesions to be recognized in the sections placed in their hands have been pointed out in the report."

The *Student's Journal* gives some interesting facts deduced from an examination of the vitality of children under different methods of feeding in Germany. Thus of 100 children nursed by their mothers, only 18.2 died during the first year; of those fed by wet nurses, 29.33 died; of those artificially fed, 60 died; and of those brought up in institutions, 80 died to the 100. Again taking 1,000 well-to-do persons and 1,000 poor persons, there remained of the prosperous after five years, 943, while of the poor only 665; after fifty years there remained of the prosperous 557, and only 283 of the poor; at seventy years there remained of the prosperous 225, and but 65 of the poor. The total length of life on the average among the well-to-do class was found to be fifty years, as against thirty-two amongst the poor.

The walls of a new building for Harper Hospital are well under way. The building is to cost $90,000. In so far as we have been able to learn, the money, grounds, etc., belonging to this hospital have come almost exclusively from poor people or those in very moderate circumstances. The millionaires of Detroit have not as yet got into the habit of investing their money in charitable enterprises. The wealthy men upon the Harper Hospital Board of Trustees could just as easily as not have contributed enough to have erected a hospital worth a half a million of dollars, a monument for them more enduring and more glorious than a gravestone or money invested for their descendents. But they are careful guardians of the funds committed to their charge. Mr. Harper and "Nance," the market woman, will go down to posterity as the founders of this splendid charity.

In a letter to the *Boston Medical Journal*, Dr. E. F. Sanger calls attention to the fact that all is not harmonious in the professional affairs of Maine. It seems that the profession claim to have largely aided in building up the Maine Medical School, and now it is complained that the faculty of this college and the staff of this hospital use their positions and influence to draw from other medical centres the paying business of the state to advance their own private interests, and leave the poor for the local practitioners. He complains that the distribution among the laity of reports of cases treated by the hospital men, etc., is gross advertising, and that it ill becomes such to haul over the coals such as are so unfortunate as to have their names in the local press. The loaves and fishes are quite as important in Maine as elsewhere, and even for doctors.

The staff of the North Eastern Dispensary of New York have also opened the resources of their dispensary to the medical public and will give personal clinical instruction to limited classes. It still remains for the members of the several hospital and dispensary staffs to organize a few more post-graduate schools. The more of these we have the better. There is room in New York for forty or fifty of these. It is far better than the multiplication of medical schools. As the pauper population of New York city is immense and fast increasing, the material for such teaching is fast increasing. It is possible for the younger medical men of that city to get a better chance to gain a practice among the wealthy class by pursuing this course. It is an aid in breaking up the medical monopoly that is said to exert such a baneful influence upon the younger men. Of course success will call for the advancement of medical art, if not medical science, and so all the profession will be benefitted. If the time ever comes when an examination rather than a diploma shall be the door by which all must enter the medical profession, it is more than likely that these small organizations will be more successful in fitting men to pass such examination than the larger schools.

Editor's Book Table.

The Philosophy of Insanity.*

Crime and Responsibility is discussed by Dr. Henry Howard from what would be considered in former days a decidedly materialistic standpoint. The metaphysical theory of insanity although not entirely extinct has given way to a decidedly coarse materialism. The Utica School of Alienists for example claim to find coarse pathological evidences in every form of insanity. This is in contradiction of the views of the majority of alienists from Esquirol to the present. Dr. Howard, however, does not lean to these coarse doctrines. He asserts that the changes in many instances are bio-chemical or, as he phrases it, molecular in character. He claims, however that insanity is the result of pathological defect; imbecility the result of teratological defect, and speaks of insanity as being the result of disease of the sensory nerves and organs of consciousness. If Dr. Howard means by sensory nerves that the peripheral terminations and connections are always diseased or affected in insanity he is in error; if on the other hand he means that the cortical terminations are affected he takes an exceedingly broad view of the meaning of the term sensory nerves. He lays down fifteen propositions, of which the seventh, ninth, and tenth seem to call for special comment. The seventh proposition is that "as man's mind is a unit and when insane it is all insane not in part but wholly; consequently although insanity differs in degree there is no such thing as partial insanity." While it is undeniably true that in the legal sense there is no such thing as partial insanity still there are many forms in which the manifestations of insanity are so limited and the simulation of normal action is so close that there is justification for using the term "partial insanity," in the sense in which we use the term "half-alive," providing it conveys an idea of similar meaning and not the legal one. The ninth proposition is that "every normal man has under certain circumstances a free will, but every intellectual man has a free will by which he controls all his desires consequently such a man would not if he could and could not because he would not be guilty of a crime against society." By this it will be seen that Dr. Howard is something of a determinist but certainly not more so than most sociologists. By intellectual man he means the philosophic type who have all passions, all feelings under full control and with this class it is obvious that crime is under normal circumstances impossible. The tenth proposition sets out by claiming that idiots, imbeciles and habitual criminals are such in consequence of abnormal defective mental organization." What will seem startling to many, is the claim here made for the habitual criminal, and yet it is no more than is claimed by Kräpelin, Ferri, Laccasogne, Lebon, and other authorities on criminality, not to speak of Benedikt. That the habitual criminal is such in many instances, in consequence of his physical organization, cannot be denied. Our ideas of right and wrong were accumulated by our race only after centuries of evolution, and that there should be atavistic returns to the primeval conditions is only in accord with observations on other varieties of atavism. Dr. Howard states, "the insane criminals are such in virtue of pathological defect in their mental organization." The large majority of what are known as the criminal insane are cases dependent upon teratological anomalies. These, though legally insane, would be, according to Dr. Howard, imbeciles. Dr. Howard makes no mention of another class, the criminal insane, yet the distinction between these and the insane criminal is a wide one, even according to Dr. Howard's sense of the term insanity. A happily married woman, for example, kills her child during an attack of puerperal insanity. She becomes in consequence a "criminal lunatic." On the other hand, an habitual pickpocket, imprisoned for crime, is also attacked by puerperal insanity. She is a "lunatic criminal." The one might be sent with perfect propriety to a criminal asylum for the insane, but it would be atrocious cruelty to send the other there. This distinction is not drawn by Dr. Howard, but seems necessary to eluciadate his full meaning. Dr. Howard claims that punishment has no effect, except perchance, on a small minority of persons. The large mass are non-criminal because of an inherited sense of right and wrong. This seems certainly too sweeping; punishment in the sense of discipline is the great agent in governing lunatic asylums. If by punishment Dr. Howard simply means that inflicted with the idea of revenge for the crime, he is certainly right. That punishment as a deterrent is tacitly recognized as a failure, is shown by the attempts to reform criminals in prison, by teaching them trades, etc. The present way of mingling the mediæval theory of vengeance with the modern theory of educational discipline, has not had the best results, but even these are much better than the old. It should, however, be admitted that to certain illy balanced minds, an additional motive is of great value, and this is where the great benefit of correctional punishment comes in. This, however, trenches on the domain of sociology rather than that of medicine.

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*The Philosophy of Insanity, Crime and Responsibility. By Dr. Henry Howard Dawson & Co., Montreal. 1882.

Dr. Howard's views on therapeusis seem very positivistic. He is opposed to the use of hypnotics or narcotics. That these have been and are abused in the treatment of insanity cannot be denied, but the abuse does not form an argument against their proper use. He has never seen any benefit from chloral or opium. We have had cases where both were of benefit; the first in acute mania and maniacal conditions; the second in melancholia. Dr. Howard objects to attempts at classification. In this he is decidedly in the wrong. He assumes classifications are based only on psychological symptoms, whereas they are in many instances based on all the symptoms of the case. The argument about the manner of thinking is not a valid one. While no sane people think exactly alike, still they think so nearly alike on some topics as to admit of classification, as Roman Catholics, Protestants, or Mussulmans, for example. The intellectual operations of the insane, while varying according to the individual case, move in certain grooves. No case of scarlet fever is exactly like another case, yet no one would dare to claim that the term scarlet is an attempt at classification which has no basis. On the contrary, upon the classification turns what is all important in dealing with insanity. Dr. Howard would make mania synonymous with insanity. Why not take melancholia and make it synonymous with insanity or dementia? To abolish the term mania, as Dr. Howard says, would be difficult; but to choose it arbitrarily as synonym for insanity, would result in many more difficulties than the attempt to abolish it.

Dr. Howard is, however, decidedly in the right in the vigorous, well put, and scientific protest which he makes against the cant that a knowledge of right and wrong constitute a test of responsibility. This mediæval test of responsibility has been thrown overboard in Germany, France, Austria and even Russia, but still survives in the English speaking countries. There have, however, never been wanting in England and America medical protests against it—from Brigham, Ray, Workman, Hughes, Spitzka, Godding and the Folsoms in America, and Conolly, Tuke, Bucknill, Maudsley, Sankey, Blandford and Dickson in England. To these there has been of late an important legal reinforcement in England. Thus Chief Justice Blackburn in his evidence before the House of Commons, says: "We cannot fail to see that there are cases where the person is clearly not responsible, yet knows right from wrong."

Granting, as has been shown, that the book contains peculiar views and that it contains many errors in statement, still its general tendencies are in the right direction. It is written with obvious sincerity and in a pleasant style. To anyone interested in psychological questions the book is of value, and a physician on the lookout for clinical evidences of insanity will find many in its pages which are often ignored by more pretentious works.

Palmer on the Practice of Medicine—Second Volume.*

This volume treats of diseases of the respiratory organs, diseases of the heart, diseases of the urinary apparatus, diseases of the male sexual system, diseases of the nervous system and parasitic diseases.

The discussion of nasal catarrh will scarcely be satisfactory to those making a special study of the nasal organs. Here, as elsewhere, the pathology is very unsatisfactory, and the treatment scarcely less so. Certainly if one is to compare this with the received accounts given by the workers in this field, he is compelled to admit that the account of our author is sadly imperfect and entirely unfit to serve as the guide for the student or practitioner. But then it is likely that most such will possess themselves of works treating more fully of this subject.

In his account of the physical signs of the diseases of the chest the author is very happy. True there is nothing new, but old truth is forcibly put and is likely to be remembered. The same remarks apply to the account of the physical signs of the various diseases of the heart.

The climatic treatment of phthisis pulmonalis is presented in a most excellent manner so that from it one may form an intelligent opinion respecting the probable value of any specific locality as a residence in any given case. As to the pathology of phthisis pulmonalis the author has not been able to accept the results of recent investigations as to its specific character, depending upon the presence of the bacillus tuberculosis. He formulates his views upon the pathology, etc., of pulmonary phthisis as follows:

1. "Pulmonary phthisis is a perversion of nutrition in the lungs, in which there is a production of a material of low organization and vitality, which involves the tissues in these organs, and which tends to a breaking-down and wasting process."

2. "This low-lived material is in some cases a neoplasm, which commences without a distinct or full-formed process of inflammation, but it is usually at an early period and perhaps always later accompanied by that process."

3. "An inflammation under certain circumstances may produce exudates and proliferations which undergo cheesy degenerations, and break down, and produce destructive processes in the lungs; but in a majority of cases, though probably not in all, during the progress of this inflammation and caseation, true tubercle is developed, invading the lung tissue, becoming itself casous and aiding in producing destructive changes in the organs."

4. "Acute general tuberculosis may occur,

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*A Treatise on the Science and Practice of Medicine. By Alonzo B. Palmer, M. D., LL. D. Volume ii. New York: G. P. Putnam's Sons. 1882. Pp. 866. Cloth. Price, $5. For sale by John MacFarlane, Detroit.

miliary tuberculosis being developed in the lungs, in serous and mucous membranes, and other organs and tissues, sometimes exciting inflammation and its consequences, but generally destroying life without the occurrence of cheese-like degeneration, and without any breaking down process."

5. "Primary tuberculosis depends upon a peculiar diathesis, often inherited, but not unfrequently acquired; is liable to be produced by unfavorable hygienic conditions; but that more or less of this tendency exists wherever true tubercle occurs. Whether this tubercular material is possessed of specific germs, capable of being communicated as a contagium, is at present undecided."

6. "Three leading varieties of phthisis—primary tubercular, primary catarrhal, and primary fibroid—may be recognized; the last two inflammatory in their origin; the catarrhal commencing as an inflammation chiefly of the bronchi and the alveoli; the fibroid as an inflammation chiefly of the connective tissue; but as each form of the disease advances, the elements of the other forms are added, they lose more or less of their primary distinctive forms and are all apt to be merged into a unified common pulmonary consumption."

7. "In many cases the process of tuberculization and inflammation commence quite or nearly simultaneously—the inflammation involving various tissues while the tuberculous growths commence in different tissues also, often in the alveoli, and according to some, around the terminal bronchi, or in the adenoid or lymphatic glandular tissue. These lymph glands, or whatever part be the seat of the deposit, enlarge, involve other structures, and the tuberculous matter becomes mingled with inflammatory products, and all together undergo caseous degeneration and finally soften and cause ulcerative processes in the lungs."

These quotations furnish a fair illustration of the author's style and modes of thought. No doubt his numerous students will be glad to read the writings of their old teacher.

They will be prized also by such as desire to know Dr. Palmer's views upon the several subjects of this volume. It will be interesting to such as desire to study the peculiar development which takes place in the mind of a man who has led the peculiar professional life of the author. To all these classes the work will be very acceptable. But we suspect that the mass of the medical profession will still look for guidance in the study of these several subjects to those who have had large fields for the practical observation and study of each.

In future editions these volumes will be improved in many details, and by the addition of new views which the author may approve, but their general features must remain as at present. To correctly and completely mirror the whole range of practical medicine of the present day is an herculean task that as yet awaits one equal to its performance. The very progress that is being made in so many departments and the great uncertainty that prevails respecting so many questions renders any comprehensive survey of the entire field by one man the more difficult. Of course it is easy enough for one to give his own views and his thoughts, but these are quite likely to be far different from views held by others or even by the mass of active workers in special fields. Of those facts which have long been settled by all workers, it is easy for anyone to make a statement entirely satisfactory. We have called attention to this matter only to indicate that too much must not be expected of the work before us and of all similar works, as they are produced under certain limitations which it is impossible for their authors to transcend. Perhaps this work is even less defective than many others which have appeared during the last few years. We think it is less defective. Bearing this in mind, the purchaser of this work will not be disappointed, and will have in his possession a very carefully prepared discussion of a large amount of subjects coming within the range of the practice of medicine, a discussion that will prove very helpful both by direct teaching and by indirect suggestion.

It is issued in an equally elegant manner with the first volume—a manner that is creditable to the Putnam publishing house.

Ninth Annual Report of the Secretary of the Michigan State Board of Health.*

In this volume we have not only the direct work of the board but a full report of two popular sanitary conventions, one held at Flint, and one at Battle Creek. At these two conventions were read thirty different papers upon questions of popular sanitary interest. In many cases the appended discussions are quite as interesting and instructive as the original papers. Besides these we find in the volume a most minute account of all the investigations pursued, etc. The mass of material here presented is immense, and it is handled in a masterly manner. As a fact, there is nothing like it to be found in the reports of any other health boards. The plan upon which the Board operates is quite different in many particulars from that of other State Health Boards. As such this volume will be of interest not only to the intelligent people but to the profession and to sanitarians generally. It is a problem of intense importance to determine the best methods of placing live sanitary truths in the minds and hearts of the people even more than to determine the best methods for developing such truths. In both of these ways this board has been more than usually succesful. But it realizes, as we all do, that very much more remains to be accomplished in both of these directions. Of the eighteen papers besides those read at the sanitary conventions eight were contributed by members of the Board, four were prepared by special committees of the Board, three compiled from the reports of special correspondents, etc., one prepared in the office from correspondence, one from the questions of the sanitary examinations. Diagrams graphically illustrate the study of the causes of sickness, and deaths, weekly reports of diseases in Michigan in 1880 and the meteorology of the same.

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*NINTH ANNUAL REPORT OF THE SECRETARY OF the Michigan State Board of Health for the Year Ending Sept. 30, 1881. Lansing: W. S. George & Co., state printers and binders. 1882. Cloth; pp. 501.

In one of the papers read before the sanitary convention at Flint, Dr. Jerome reports the following personal observation made at the Chicago stock yards. He says among a crowd of twelve hundred hogs driven through a passage way to the slaughter house some forty or fifty hogs were subjects of the hog cholera. Some died by the way. Curious to known where the other sick hogs were separated from the well ones he followed the drove to the upper story of the slaughter house where he found that all went the same way, whether sick or well.

Retracing his steps he found that those who had died by the way were utilized in the manufacture of lard, out of which is made the "oleomargarine butter" and the "hog cheese" of commerce. Since these observations the doctor has lost his relish for "sugar-cured hams," "lard crackers," "pork" and "pickled pigs' feet," when he has reason to suppose that they came from any of the great slaughter pens of the land.

Prof. Kedzie, in an account of his visits to the same large stock yards, stated that the bruised meats which could not be sold in the dressed state were put up in cans and sold.

In an excellent paper upon the force value of foods Dr. Vaughn calls attention to the fact that the processes of digestion and assimilation and excretion proceed with more vigor during the forenoon. After midday there is a general decrease in the vital forces. From these facts he deduces the principles which should govern the selection of food for the several meals of the day. Thus for breakfast no stimulants should be taken; no tea, no coffee, no lean meat, no pies or cake. Milk, bread, butter, potatoes and oat meal or cracked wheat are suitable for the breakfast table; also eggs. Many fruits may be taken before breakfast. Breakfast should be eaten soon after rising.

Dr. Baker calls attention to the fact that more than three-fourths of all deaths from diphtheria are of children under ten years of age. Hence among persons over ten years of age but few deaths should be expected; while of children under five years the death-rate may be expected to be very large. These facts are of importance in estimating the value of any remedial measures for the relief of this affection. Those accustomed to witness the great mortality of children during the first five years of life are quite skeptical as to the reports of as many recoveries as are often given in the reports of other physicians. Yet the cases of the latter may have been entirely among those in middle life who should get well without any treatment.

Dr. B. Coggshall concludes an interesting discussion of the effects upon children of their school life thus: "School life tells favorably upon the health of children; its evils are accidental rather than necessary."

In a paper upon the action of alcohol on vital functions Dr. A. F. Kinnie says: "Alcohol is a narcotic and paralyzing agent all the time whether in large or small doses—both when it quickens the heart's action and seems to stimulate and when it overwhelms and finally poisons fatally the entire system. But true to its elective nature, it paralyzes the inhibitory nerves of the heart first, and the more frequent beating of that organ which immediately follows, is due to the fact that its motor nerves are no longer checked and regulated."

Dr. A. B. Prescott, of Ann Arbor, has an elaborate and most interesting paper, giving the results of some personal investigations into the composition of some of the most common nostrums. We wish that every person in the land would understandingly read it. The "pain killers" are the most harmless of these preparations. He says: "Few of them are wholly inert, and most of them have a transient effect. Of eight of them analyzed, six were found to contain the ordinary spirit of camphor, three contained ammonia, four were charged with red pepper, all had some alcohol; oil of sassafras was found in four of them, oil of turpentine in two, tincture of guaiac in two, chloroform in one, and myrrh in one. One of the most successful of these contained, in a half-dollar bottle, one and one-half fluid ounces of soap liniment, with one-half fluid ounce each of tincture of capsicum, ammonia water and alcohol." The ague cures, the opium cures, the cosmetics, hair dyes, the specifics for asthma, catarrh, rheumatism, etc., were all found to be constructed on the same general principles. One called carbolate of iodine was composed of carbolic acid, camphor and wintergreen oil, no iodine aside from the name. Prof. Richter, a short time since, published an analysis of 938 secret remedies as analyzed by himself and other chemists. In so far as the constituents had any action at all, they were such as are in common use, known not alone to physicians, but to all persons of ordinary intelligence. Hence, the name and notoriety of the patent, copyrighted medicine is everything and the ingredients very little either in cost or consequences. The people know only the name which has been branded into a continent, take it three times a day and depend upon it when dread disease attacks them. He shows that the composition of these nostrums is not at all such as their owners state.

Dr. Kellogg, in a paper upon the relation of preventable disease to taxation, calculates that such disease in the single state of Michigan costs at least ten millions of dollars annually. From this the money value of blotting out these diseases is quickly estimated.

More interesting are the facts presented, showing the relation of certain diseases to definite meteorological conditions. At another time we hope to present these in some detail, as of positive value in estimating the causes of disease. As will be understood, these facts are placed in juxtaposition to the meteorological conditions prevailing at the time the occurrence of the diseases are recorded. An excellent index at once places all portions of the volume at the reader's disposal.

Altogether the volume is worthy of all interested in its preparation, and of the profession and the people of this state and the science of public health in general. Our only regret is that it will be so imperfectly comprehended by the average legislator and the people at large. Otherwise the appropriations for the needs of this board would be many times those at present made, and especially would the secretary receive a salary more nearly proportioned to his ability and actual skilled labor.

The mechanical execution of the work is all that could be desired.

Bartholow on Hypodermatic Medication.*

The fourth edition of a book issued so recently calls for little notice from any medical journalist. Its merits, demerits, and its general helpfulness are well understood by the profession. It suffices to say that all which has proved of practical utility, discovered since the last edition was issued, has been skillfully introduced here. The amount of new material thus added amounts to more than an hundred pages. These new additions do not at all include every contribution to this branch of medicine, but only such portions as in the author's judgment have won their way into the confidence of the profession. In short he has endeavored to make a record of only the permanent additions to our knowledge. He makes an effort to substitute the word "hypodermatic" for "hypodermic," acting in the interests of a correct nomenclature. The changing of this word will, we fear, prove a difficult task—one that will call for very general assistance on the part of the profession.

As a whole the work is a valuable one, deserving of a prominent place in the library of every practitioner of medicine. If we are to judge from the medical journals the hypodermic administration of medicines is less popular than it was a few years since, but there is all the more need that every one should have at hand the very best methods for its use when it is called for. No one doubts that it has a permanent place in the practice of medicine, only experience has shown that this place is not so large as it was formerly supposed.

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*A MANUAL OF HYPODERMATIC MEDICATION, by Roberts Bartholow, M. A., M. D., LL. D., fourth edition, revised and enlarged. Philadelphia, J. B. Lippincott & Co.; 1882. Cloth; pp. 365. For sale by John MacFarlane, Detroit.

The Physician Himself, Second Edition.*

It is only a few weeks since the first edition of this work appeared. Yet we have before us the second edition. This fact indicates the general interest in the subject by the profession at large. No doubt many bought the book in the hope of finding some method by which they could better succeed in the struggle for existence. Others from curiosity desired to know how the matter was viewed by other eyes. Of course the young and inexperienced wanted all the help in understanding their new relations which their elder had to give. For these and other reasons the work has met a need in the profession. We shall hope that it will exert a good influence upon the solution of some of the important ethical questions which at present agitate the medical profession. Certainly the instruction here afforded will lead in the right direction. We cordially welcome this edition and trust that successive editions may be called for until every physician in the land possesses a copy.

Fourth Edition of Allingham on "Diseases of Rectum."†

When a work has reached its fourth edition it must be concluded that the profession are well aware of its merits and demerits. This edition differs from the last mainly in that to it have been added such facts as seem to the author to have been omitted in former editions. Some obscure points have been cleared up. The volume is issued at a merely nominal price as will be seen. As a brief treatise, at once complete and reliable it will find increased favor with the profession.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Action of Medicines.

SULPHIDE OF CALCIUM AS AN ANTISUPPURATIVE.—Dr. A. H .Smith (*N. Y. Med. Jour.*, June, '82,) concludes from some recent studies that: Judging from this limited number of cases, it would seem that we are warranted in concluding that in many cases of suppurative affections, ranging from the small pustules of acne to extensive suppurating surfaces, an appreciable, and often a very marked, benefit is derived from the use of the calcium sulphide, suppuration which would otherwise take place being averted, or the quantity and duration of an existing discharge being lessened.

At the same time its action is not uniform; and in many apparently favorable cases it will fail entirely.

The drug is somewhat prone to irritate the stomach, and this circumstance affords an indication for small doses frequently repeated instead of larger ones at longer intervals. One tenth of a grain every two hours in acute cases will generally secure the full therapeutical action of the drug, but larger doses may sometimes be required, and some patients will bear well a grain three or four times a day.

Even in small doses the sulphide will occasionally produce headache, and the patient is usually more or less annoyed by eructation of sulphuretted hydrogen.

DANGER FROM IODOFORM DRESSINGS.—*The British Medical Journal* (June 17, '82) calls attention to the dangers of the fashionable use of iodoform dressings thus:

The search for an antiseptic body which shall be a powerful germicide, and yet not injurious when absorbed by the human organism, still continues. Not long ago, Mikulicz, and many other surgeons in Germany, enthusiastically extolled the merits of iodoform; and it has been widely used both in that country and, though to a less degree, in this. For a time, all seemed to promise well with the new drug, but gradually we began to learn its demerits; and recent experience seems to show that its use, under certain conditions, as yet not fully explained, may give rise to most serious, perhaps even to fatal results. Iodoform was introduced into England some years ago, as a local application which was of great use in the treatment of spreading ulceration, and especially of the local contagious ulcer. Gradually its use extended; it gained much favor with gynæcologists, especially for the purpose of correcting the fœtor of ulcerating cancer of the womb; it was blown into the nose and into the ear, and, made up into a bougie, introduced into the male urethra. About two years ago, Mikulicz recommended it as a dressing after operations, major and minor, on the ground that it was a powerful antiseptic, and yet did not irritate the parts. Its employment was said to be especially advantageous in the treatment of scrofulous joints; and those who adopted this line of treatment did not hesitate to open freely a knee-joint affected with tumor albus, and introduce iodoform in large quantities into the cavity of the joint; in such a case, an outside dressing of cotton-wool, treated with iodoform, was applied, and left undisturbed for a month or more. No great care seems to have been taken to estimate the quantity of the drug used in such a dressing; it was ladled out of a bottle into the joint, and no ill effects appeared to follow. Now, Dr. Ringer pointed out last summer that iodoform was a heart-poison; he found that one-fifth of a grain would almost arrest the frog's heart. Such an experiment as this prepared us for the clinical observations detailed by Dr. Max Schede, of Hamburg, who, in an important paper, published recently in the *Centralblatt für Chirurgie*, drew attention to the toxic action of the drug. He found that, in certain cases, its use is followed by an enormous increase in the frequency of the pulse, which runs up to 180, even in the adult, without any marked rise of temperature, or any general symptoms beyond some disquietude, *malaise*, and loss of appetite; in other cases, in addition to the rapid and feeble pulse, there are some fever and headache; in both of these classes of cases, the withdrawal of the drug is immediately followed by a disappearance of the symptoms. In other cases, where the rapidity of the pulse is very great, and the temperature very high (104° Fahr., or more), the danger to the patient, in spite of the absence of marked general symptoms, is also greater—inasmuch as the withdrawal of the drug is not always followed by an immediate cessation of the symptoms. By far the most serious form that iodoform poisoning takes, however, is that in which the sensorium is deeply involved; in children, the symptoms closely resemble those of meningitis, and have been frequently rapidly fatal, in spite of the immediate withdrawal of the drug. The child, who may have been in excellent health for some weeks, under the use of iodoform dressings suddenly becomes very ill, the pulse grows rapid, with irregular or perhaps very slight pyrexia, vomiting is severe, consciousness is disturbed or lost, and there are localized paralyses. It has been urged that probably, in Schede's cases, these symptoms did in reality depend upon a rapid meningitis—perhaps of a tubercular nature, for the patients have generally been strumous children; but this we do not believe to be a complete explanation, because, among other reasons, we are acquainted with a case of this kind which recently occurred in a London hospital, where symptoms pointing, as it was thought, most unmistakably to meningitis, entirely disappeared when the affected joint was freed from iodoform. In Mr. Stanley Boyd's report of four cases, in the wards of University College Hospital, to be found at page 903 of our present number, drowsiness and stupor were observed in two patients, symptoms of meningitis in one, and delirium in a fourth, which ended fatally. Both Schede and Kuester say that the drug can cause sudden collapse and death; but of this there does not appear at present to be sufficient proof.

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*THE PHYSICIAN HIMSELF. By D. W. Cathell, M. D. Second Edition, carefully revised. Baltimore: Cushings & Bailey. 1882. Cloth, pp. 208. Price, $1.25.

†FISTULA, HÆMORRHOIDS, PAINFUL ULCER, Stricture, Prolapsus, and other Diseases of the Rectum. Their Diagnosis and Treatment. By William Allingham, M. D. Fourth Edition Revised and enlarged. Philadelphia: P. Blakiston, Son & Co. 1882. Cloth, price, $1.25.

Iodoform is an iodine-compound, chemically analogous to chloroform; the composition is represented by the formula $C H I_3$; it contains therefore 96.7 per cent. of iodine. From this fact, it has been argued by some, wise after the event, that its use in large quantities must be injurious; but, what do we know of the toxic properties of iodine itself? Very little, in fact. Iodine has been injected into the cavity of the pleura without ill effect, and, combined with potassium, enormous doses can be tolerated. Rather does the above account of the symptoms it can produce tend to approximate it somewhat to chloroform in its therapeutics; and he would be a bold man who would maintain that the symptoms of chloroform poisoning were due to the chlorine in its composition. A writer in the May number of the *London Medical Record*, to whom we are much indebted, adopts the view of Dr. Mundy, of Vienna, who contends that the toxic or fatal symptoms have been due to the reckless manner in which large quantities of the drug have been used. No doubt, this is perfectly true; but it does not seem to explain all the phenomena. In the first place, it is comparatively rare to get any symptoms of poisoning at all. There are surgeons in this country, who have used the drug in large quantities at a time, and have never met with a single case of poisoning; and, in a great proportion of the cases reported, the symptoms did not appear until after the continuous use of the drug for two or three weeks. We are loth to fall back on Dr. Max Schede's theory of a peculiar idiosyncrasy; and, before doing so, we would certainly desire more complete observations, especially with regard to the urine. The supposed cumulative action of other drugs —of digitalis, for instance—has been distinctly traced to renal disturbances. So long as the kidneys discharge their functions vigorously, so long is the poisonous substance rapidly eliminated from the blood, and gives rise to no symptoms; but if, from some cause, the urinary excretion is checked, then the poisonous body accumulates in the blood, and gives rise to its characteristic symptoms. For this reason, we think that a careful examination of the urine, where iodoform is being used, may not only throw light on the way in which it produces toxic symptoms, but may also furnish a timely warning of their approach.

Lastly, we are informed that Professor Kocher, of Berne, has been struck by the resemblance between the symptoms of iodoform and of chloroform poisoning, and that he has encountered one case where the onset of the symptoms was marked by signs of acute nephritis.

QUININE IODATE AND BROMATE—THERAPEUTIC PROPERTIES.—Dr. Chas. Cameron (*Brit. Med. Jour.*, June 17) calls attention to the properties of these new salts. He pointed out that the researches of Arthur Gamgee, Priestly, and Larmuth had shown that the three forms of phosphoric acid and of vanadic acid had very different degrees of physiological activity. The salts of orthophosphoric acid were almost inert when their bases were inactive, whilst the pyrophosphates and metaphosphates were poisonous The orthovanadic acid was poisonous, but pyrovanadic acid and metavanadic acid were still more poisonous. The high physiological activity of the pyrophosphates and metaphosphates had been attributed to the unsaturated condition of their nuclei; these salts were not statical, for they could take up additional basic material. Further, when superoxygenated compounds were introduced into the system, it might be expected that their oxygen, being loosely combined, would unite readily with elements of the blood. Dr. Cameron believed that the chlorates, bromates, and iodates were more active physiological agents than the corresponding chlorides, bromides, and iodides. Chlorate of sodium was more powerful than chloride of sodium or common salt. It might be inferred from analogy that iodate of potassium was a more active physiological agent than iodide of potassium. Some years ago Dr. Cameron suggested the use of ferric iodate as a substitute for the unstable ferrous iodide, and more that a year ago he had prepared an iodate of quinine in combination with an effervescing mixture. Each drachm of the effervescing iodate of quinine contained two grains, or one dose, of the iodate. It had been found very useful in the treatment of neuralgia, severe articular pains which had resisted the employment of the usual remedies, sluggish forms of pulmonary congestion, secondary syphilitic disease, and malarial enlargement of the spleen. Bromate of quinine might be prepared by precipitating barium bromate by sulphate of quinine or by neutralising quinine with bromic acid. It occurred when air-dried in small asbestos-like masses, which under the microscope were seen to consist of very long needles.

ALCOHOL—ITS ANTIPYRETIC ACTION.—Dr. L. Grebe (*The Med. Record*, Aug. 5), from experiments upon dogs and horses, reaches the following conclusions:

First.—The action of alcohol upon the temperature varies, according as it is given in small or large doses.

Second.—In small and moderate doses, alcohol, when given to animals with fever, produces an immediate slight increase in the bodily temperature, amounting to about 1° F.

Third.—This increase is of short duration, and is followed by a fall of temperature to a lower level than before the alcohol was taken.

Fourth.—In large, but not poisonous doses, alcohol depresses the temperature without any previous rise. The fall may amount to several degrees.

Fifth.—A long-continued fall of temperature can only be obtained by giving large doses at regular intervals. Given in this manner, alcohol is a true antipyretic.

Sixth.—Alcohol has its antipyretic effect by virtue of its power to hinder or lessen oxydation. The author states that in fever the red blood-corpuscles are diminished in number, but that by giving alcohol in antipyretic doses they reach their normal amount again. This assertion, first made by Manässein, was confirmed by Grebe.

The various theories offered to explain the heat-depressing powers of alcohol are discussed by our author. He is inclined to give the most weight to the power which alcohol has of delaying tissue-changes. Grebe's conclusions are in harmony with those of most of the other very numerous investigators in this line.

ANTIPYRETIC MEDICINES: THEIR ACTION AND USES.—Prof. Binz (*London Medical Record*, June 15, 1882), says:

1. In the present state of our knowledge, there are two modes in which antipyretic remedies may be conceived to operate: first, by increasing the discharge of the pyrexial heat; secondly, by checking its production.

2. The quantity of heat discharged may be augmented by direct withdrawal (tepid water), or by facilitating the circulation through the skin (digitalis, cutaneous irritants).

3. The production of heat may be lessened by repeated cooling of the surface, and especially by the internal use of antizymotics.

4. Febrile diseases commonly owe their origin to the introduction and rapid development of substances akin to ferments. Several of these have been shown to resemble yeast in being low vegetable organisms, or derived from such organisms. They enter the glands, where they undergo multiplication, increase the metabolic processes, generate products of decomposition which exert a paralyzing action on the nervous system, and raise the standard of temperature throughout the body.

5. Owing to impaired action of the heart in certain stages of the disorder, or to contraction of the cutaneous vessels, the skin becomes anæmic, and gives off less heat than usual. The internal temperature rises accordingly.

6. Quinine, our chief antipyretic, acts by directly combating the efficient cause of the disorder, and by checking the abnormal metabolism going on in the body. The nervous system takes no part, or only a secondary part in the operation. In intermittent fevers, quinine prevents the paroxysms by attacking their infective cause. The paroxysms are not the essence—the substantive element—of the disease; they are only a symptom of it. The substantive element is the poison deposited in the colorless corpuscles of many organs, especially the spleen. There are fevers without paroxysms, and paroxysms without fever. It is just those intermittent fevers which run their course without paroxysms that are the most malignant. The malarial poison rapidly causes disintegration of the tissues and the blood, and so paralyzes the nerve-centres.

7. The reduction of acute splenic tumors by quinine depends upon the adverse influence exerted by the alkaloid on the infective poison to which the morbid over-action of the spleen and its consequent enlargement are due. "*Cessante causâ cessat effectus.*" Even a healthy spleen may be reduced in size by large doses of quinine; the alkaloid vigorously checking the oxidation of its principal elements, the colorless corpuscles. Quinine has no direct influence on the vaso-motor nerves.

8. Quinine attacks the malarial poison with especial energy; on this fact depends the so-called specific action of quinine in intermittent fevers. The same relation, but in a minor degree, subsists between quinine and the infective poison of enteric fever, between mercury and iodine and the poison of syphilis, between salicylic acid and the "irritant" in acute articular rheumatism.

9. An antipyretic which, in one disease, instantaneously arrests the fever, may be wholly powerless in another. The difference depends on the fact that the various antizymotics act very unequally on the individual schizomycets and ferments; one will paralyze them rapidly, by another they will hardly be affected.

10. The past history of therapeutics, and recent achievements in the domain of etiology and pharmacology, entitle us to assume that, by persistent scientific inquiry and practical observation, we may succeed in discovering a specific antidote for every species of infective or septicæmic malady.

Mental Diseases.

PROGRESSIVE PARALYSIS OF THE INSANE; ITS CLINICAL AND PATHOLOGICAL NATURE.—Prof. Loggia (*Alienist and Neurologist*, July, 1882) concludes an able discussion thus:

1. That the mental changes presented under the form of acute or chronic delirium are dependent, as Bayle has well declared, on phlogosis of the meninges; the cells and fibres of the nervous substance are only irritated or slightly offended in their texture, the lesion, for the most part, being reduced to a state of simple hyperæmia.

2. When the nervous cells begin to be involved, which is shown microscopically, in the process of softening of the cerebral substance itself, we shall then have in the first instance dementia, and in the second absolute paralysis of sense or of motion, according to the part of the brain that has been altered.

3. When, however, there commences that species of phlogosis which is called interstitial,

and that part of the brain lying in front of the fissure of Rolando, constituting the motor zone, becomes preferentially affected, we shall then have in the scene the phenomena of progressive general paralysis with delirium every time there predominates in the other convolutions a state of excitement or hyperæmia; or those of dementia if this part has softened.

4. Finally, when softening or interstitial inflammation extends to the opto-striate centres, the paralysis becomes permanent, and is followed by all that train of phenomena which distinguish it from the *improperly called general paralysis of the insane.*

Histology.

KIDNEY: ITS MINUTE ANATOMY—RESEARCHES.—Dr. H. B. Millard (*N. Y. Med. Jour.*, June, '82,) summarizes his recent studies thus:

1. The rods discovered by Heidenhain in some varieties of the tubuli uriniferi are part and parcel of a reticulum present within every epithelium.
2. The reticulum, including its elongated rod-like formations, is the living matter proper.
3. The relation of the rods to the rest of the reticulum of an epithelial body varies greatly, the variation probably being due to different stages or degrees of secretion.
4. The reticulum, including the rod-like formations, in the inflammatory process, both in catarrhal and croupous nephritis, gives rise to a new formation of living matter, which results in the new formation of medullary corpuscles or pus corpuscles.
5. The structureless membrane is lined by flat endothelia lying between it and the basis of the epithelia of the orinary tubules.
6. In nephritis the endothelia become considerably enlarged, and in catarrhal, as well as in croupous nephritis, they line the urinary tubules after the epithelia have been shed or lost; they surround the cast in croupous nephritis after the epithelia have perished in the formation of the cast.

Ophthalmology.

CHOKED DISC AND INTRA-CRANIAL DISEASE A NEW NERVOUS CONNECTION.—Dr. E. G. Loring (*N. Y. Med. Jour.*, June, '82,) concludes an able article as follows:

1. That the vaso-motor theory, as advanced by Benedikt, is not sufficient to explain either the mode of transmission of the morbid irritation within the head, or the resulting neuritis optica.
2. That the irritation is conveyed, not by the isolated fibers of the sympathetic system, but through the agency of the trigeminus.
3. That choked disc or papillitis, in connection with brain disease, is not simply a vaso-motor disturbance—a vascular change—which leads to inflammation and stasis on account of the anatomical conditions of the parts affected, but that it is a true neuritis, the expression of an irritation of certain fibers of the fifth pair which not only regulate the blood supply in the vessels of the disc and its neighborhood, but which also maintain the healthy processes of waste and repair of the elements of the tissues themselves.

This being so, the same analogies and distinctions between "irritation" and "inflammation" can be made here as with sympathetic ophthalmia, so that here, as well as there, the irritation may exist as such for an indefinite time, or may so reduce the vitality and resisting power of the tissue of the disc and surrounding parts as to develop gradually, or explode suddenly, into an actual inflammation—that is, into a neuritis.

The immediate and exciting cause of this neuritis might then be either an external one, such as exposure to cold' or heat, over-exertion, either mental or physical, or, indeed, too much exposure to light, the effects of which, under the weakened condition of the organ, might lead to a papillitis—or the exciting cause might be an internal one, such as some irritation from the condition of the blood and circulating fluids, either chemical or mechanical, either local or general, which, insufficient in itself to produce any bad effect upon a normal disc, might yet be just sufficient to produce a condition of inflammation in a part that was weakened and irritable.

SCLEROTOMY—VIEWS OF ENGLISH OPHTHALMOLOGISTS.—*The British Medical Journal*, of June 17, 1882, gives the following discussion on this subject: The discussion was opened by the reading of several papers. The first of these was by Mr. Charles Higgens, who had commenced to perform sclerotomy some years before the cases forming the subject of the paper were operated on. At that time, he was compelled to abandon the operation, owing to the frequency with which it was followed by sympathetic ophthalmia. He had recently resumed the practice of the operation, but had adopted a different method of operating, and now had fairly satisfactory results. The paper contained notes of eighteen cases, in three of which both eyes were operated on, making a total of twenty-one eyes. A printed table, showing the result of the several cases as far as they were known, accompanied the paper. In conclusion, he suggested that the operation should be done in all cases of simple glaucoma, in cases where the pupil was widely dilated, or the iris had undergone changes rendering iridectomy difficult or impossible. Since writing his paper, two of the cases had returned; and in one it had been necessary to perform iridectomy, and in the other the eye had to be excised.

Mr. Spencer Watson also contributed a paper. In performing the operation, he made use of the first incision for iridectomy, as modified by Mr. Bowman; the section being made by puncture and counterpuncture. Eserine was used before and after the operation. A cystoid cicatrix formed in the scar, and appeared to be essential as a means of permanent drainage. Sclerotomy was preferable to iridectomy in all cases of eyeball-tension, in which the pupil responded to myotics. It was useful in subacute, acute, and perhaps in chronic cases. Whenever there was a tendency to intra-ocular hemorrhage, as evidenced by ophthalmoscopic examination, sclerotomy was to be preferred; nor whenever the iris was much atrophied. It was not suitable for cases of "glaucoma fulminans," nor for any cases of eyeball-tension in which there was reason to suspect iritic adhesions, or adhesion of the periphery of the iris to the cornea. Several cases were adduced, in which the results of sclerotomy three, four, and five years after the operation had been noted as satisfactory; and a case of hydrophthalmus in a child of a year old was related, in which sclerotomy and Argyll Robertson's operation had been attended with success in reducing tension. Some cases of failure were also related; the failures being attributed rather to the severity of the cases, and to previous neglect, than to any inherent defect in sclerotomy as a remedy.

Mr. J. B. Story (Dublin) read a paper, in which he stated that he had examined the notes of thirty-four cases which had been operated on at St. Mark's Hospital. Of the cases where, before the operation, sight was entirely destroyed, in one pain was relieved, while in one the result was unfavorable. In eighteen cases the sight still remained to a varying degree when the operation was performed; in eleven eyes, where the power of counting fingers remained, there was in all an immediate improvement, but in only one was it known to have been permanent. Of four cases where mere perception of light remained, one was benefited permanently, and the other two remained in the same state as before the operation. In six cases of chronic inflammatory glaucoma, one was, two years and a half later, greatly improved; in the other five there was temporary improvement only. The second eye of the patient who was, as above said, greatly benefited was also operated on, but without any benefit. Three eyes suffering from traumatic glaucoma were operated on. In one, the cure was believed to be permanent, in one no benefit was received, and in the third case the result was unknown. Sclerotomy had also been performed on both eyes of a child, æt. five months, suffering from hydropathalmus; the result was believed to have been unfavorable. He was anxious to obtain an explanation of a phenomenon he had observed; namely, that in cases where the pupil was under eserine when the aqueous humor escaped, the pupil dilated; ordinarily, when the aqueous humor escaped, the pupil contracted. He was inclined to attribute it to the elasticity of the iris-tissue. He performed sclerotomy by making a puncture and counterpuncture, and leaving a bridge of sclerotic undivided.

Mr. Bader contended that the object of the operation was to establish a permanent communication between the aqueous chambers and the subconjunctival space. In his operation, the scleral incision included not less than one-fifth of the corneo-scleral circumference, and no scleral bridge was left. The aqueous humor and iris prolapsed through the wound, and gave rise to staphyloma. The after-treatment should tend to encourage the persistence of the staphyloma. In reply to the president, Mr. Bader said that, for the last seven years, he had entirely abandoned iridectomy in glaucoma, in favor of sclerotomy. In reply to Mr. Power, he added that he had never met with a case of sympathetic ophthalmia as a consequence of the operation.

A paper by Mr. Swanzy (Dublin) was read by the secretary. The author had performed sclerotomy for glaucoma ten times. Of these, two were unsuccessful, one being a case of hemorrhagic glaucoma; the other a case of chronic simple glaucoma, where the operation was followed by iritis, owing, he believed, to the use of too much eserine. One case of subacute glaucoma was cured by sclerotomy. Three eyes, in which Mr. Swanzy performed sclerotomy for chronic simple glaucoma, early in October, 1879, were examined by him on June 6th, and the tension in all three was found to be still normal, and the vision such as to enable the patients to engage, the one in the practice of his profession as a medical man, the other in his business as a market gardener. The other cases were also instances of chronic simple glaucoma, and, so long as the patients remained under observation, the results of the operations were maintained. Mr. Swanzy had met with prolapse of the iris in two cases only, and in each of these the pupil had not been brought to a maximum of myosis by means of eserine. Extreme myosis Mr. Swanzy believed to be the only certain safeguard against prolapse, and would not perform sclerotomy on an eye in which the pupil was not fully contracted. The operation was performed in the way described by De Wecker.

Mr. Nettleship had performed sclerotomy twenty-three times, using eserine before and after the operation. In several cases, iridectomy had been done once or more before sclerotomy. In all, the disease, was advanced, and either quite chronic or subacute. The last eight operations had been performed within three or four months from the present date; and the final result had, therefore, not been reached. In the fifteen earlier cases, normal tension was permanently restored and the disease arrested in six, and in all of these the scar was distinctly bulging and dusky ("cystoid"); in the remaining nine, the result was indefinite in some, and decidedly unfavorable in others. (The details of these cases were appended to the paper, but not read.) In all cases, whether successful or not, the degree of bulging of the wound and prolapse of iris were in direct proportion to the increase of tension. The author considered sclerotomy indicated (1) instead of a second iridectomy when a first iridectomy had failed, (2) in all advanced cases where the angle of the anterior chamber was probably permanently closed, (3) in simple chronic glaucoma with good anterior chamber and healthy iris; and contraindicated when the anterior chamber was very shallow, even though the iris were healthy and pupil active. He thought it very important to make incision as far back as possible.

The President observed that the subject which these papers raised was extremely important. Iridectomy was, he believed, the most valuable means which the surgeon possessed of dealing with most cases of glaucoma; it was not, however, applicable to all cases, and this discussion would render great service if it could bring out clearly the cases in which sclerotomy could supply its place. The use of eserine was an important advance in our knowledge, and would, he believed, never be discarded, whatever might be the fate of iridectomy or sclerotomy. One point to be discussed was, the form of sclerotomy to be advocated in the various cases where iridectomy could not be hopefully performed; and another point was as to the forms and stages of glaucoma in which sclerotomy was the better operation. The subject was one of great difficulty, not only from the complexity of the anatomical structures involved, but also from our ignorance, in spite of all that had been done, of the causation of glaucoma, and of the causes of the relapses which so frequently occurred. For himself, he confessed that he still, in many cases which came under his notice, felt great difficulty in understanding their origin, and still kept his mind open, hoping for clearer knowledge.

Mr. Critchett said that, speaking from his own experience, and after listening with attention to all that had been advanced, he still felt his confidence in iridectomy unshaken; he entirely opposed those who would replace it by sclerotomy. In most cases of glaucoma, iridectomy did all that sclerotomy could do; it was more reliable, and its results more lasting. But there were certain classes of cases where iridectomy was contraindicated. 1. In cases where the disease was excessively acute, rapid disorganization of the iris and other intra-ocular structures occurring, the difficulty and dangers of iridectomy were such, that it might be judicious to perform sclerotomy, at any rate as a preliminary operation. 2. In hemorrhagic glaucoma, sclerotomy might perhaps be indicated, though the operation would not be very hopeful. 3. In certain rare cases, which the speaker called "acute simple glaucoma," in which the disease commenced with sudden attacks of dimness, or even loss of vision, lasting for about ten minutes, and recurring once or twice in the twenty-four hours, tension being very great, and the pupil fixed, but there being no pain, and no "inflammatory" symptoms, iridectomy gave very bad results, and it might be wise to try sclerotomy. 4. In glaucoma following cataract-extraction, he thought, from personal experience, that sclerotomy was of more value than iridectomy; in none of these cases in which he had yet tried it had it failed him.

In operating, he followed the method of De Wecker. He protested against a complete section, which inevitably led to bulging of the ciliary body, and must result in keeping up a protracted irritation, and so conduce to the occurrence of sympathetic ophthalmia.

In response to a call from the president, Mr. Teale (Leeds) said that he had never performed sclerotomy. The remarks made by Mr. Critchett seemed to him to put the bearings of the subject in a tangible form. In traumatic glaucoma, after extraction of cataract, he had for many years done an operation suggested by the president With a small knife, he punctured the cornea, and pushed on through the posterior capsule into the vitreous body; in two cases, this had been most successful. He could remember the time when iridectomy was a new operation, and was fiercely opposed; but it seemed to him that the general success of iridectomy, at that time, was far greater than was now the case with sclerotomy. Mr. Geo. Lawson thought that sclerotomy was distinctly contraindicated in certain cases—in hydrophthalmus, for instance (where he had had subsequently to excise the eye), and in acute glaucoma. But, after cataract operations, sclerotomy gave excellent results; and did good also in hæmorrhagic glaucoma, and in cases of increased tension in the later stages of sympathetic ophthalmia. In these it relieved the tension and pain, even if it did not improve the sight, whereas iredectomy did no good. In operating, he was careful to avoid prolapse, and regarded entanglement of the iris as a dangerous event.

Mr. Pritchard (Clifton) said that, in the cases where iredectomy could not be done, he had been in the habit of making a vertical section through the corneo-sclerotic junction with a fine knife. If a prolapse of the iris occurred, he regarded it as a rather good thing, since the cicatrix was then less firm and regular. He had watched cases where at each subsequent rise of tension, leakage had occurred through this scar.

Conditions Under Which Foreign Bodies have been Observed to be Tolerated in the Background of the Eye.—These are stated by Dr. Knapp (*Archives Ophthalmology*, June 1882) thus:

1. The size of the foreign body, with one exception, did not exceed 2 mm. in its greatest diameter. In Graefe's first and second cases it was about as long as the diameter of the optic disc and scarcely half so broad. In Jacobson's case the corneal scar was, 1½ hours after the injury, about 1‴ long, the ophthalmoscopic dimensions are not stated—"a small dark body was seen." * * * In Jacobi's case the thickness was 0.75 mm., the length could not be determined, as it was impossible to know how deep it penetrated into the membranes. In Hirschberg's first case the corneal scar, three days after the injury, was 1‴ long; the body, ophthalmoscopically determined, was about 2 mm. long; in his second case it was 2 mm. long and 1.5 mm. broad. In Strawbridge's case it had the size of a pin-head. In Snell's case it was about 1.25 mm. long and 0.75 broad. In Hirschberg's third case it was about 1 mm. long and 0.50 mm. broad. In our case it was 1.5 mm. long and 1 mm. broad. The foreign body in Graefe's third case was exceptionally large, "at least 2½‴ long and 1‴ broad. It produced an irregular corneal scar of 1‴ in length, and must have pierced the cornea in the direction of its longest diameter."

2. The substance of the foreign body was iron or steel in all cases except two: that of Jacobson, in which a miller, while sharpening a mill-stone, injured his eye by a piece of stone flying off, and that of Brière, in which it was copper, a fragment of a gun-cap.

3. The parts traversed by the foreign body were the cornea, iris, and lens in the majority of cases; the sclerotic, ciliary body, and choroid in some; the vitreous, of course, in all.

4. The reaction of these parts, produced by the traumatism, was a readily cicatrizing wound in the cornea and sclerotic; perforation and cicatrization, with or without transient inflammation, in the iris; stationary or progressive opacity in the lens, necessitating the subsequent extraction of cataract; diffuse and floating opacities in the vitreous, clearing up in most cases, partially remaining permanent in some.

5. The lesions in the fundus were circumscribed laceration of the retina and choroid, and hemorrhage; no detachment. In one case (Snell) the retina was intact, the foreign body adhering to its inner surface.

6. The reaction in the membranes of the fundus was circumscribed thickening of the retina, circumscribed irregular pigmentation and superficial atrophy of the choroid; in one case (Jacobi) hypertrophy of the chloridal pigment is mentioned, but, to judge from the black appearance of the foreign body in our and other cases, this is not beyond doubt. In

all cases there was transient, more or less severe ophthalmitis.

7. The foreign body was situated in one case (Snell) on or in the inner layers of the retina; in the majority of cases it penetrated the whole thickness of the retina, in some the retina and choroid; in one it was said to stick in the sclerotic.

8. In most cases one end of the foreign body projected into the vitreous, up to 1 mm. or less in height; in some its inner surface was at the level of the retina. The inner end was either perfectly free, or incompletely covered with delicate cords of connective tissue, or the whole foreign body was encapsuled (Jacobi, Brière).

9. The retinal border of the foreign body was surrounded by connective tissue, which in some cases (Snell, for instance) was very scant; in others (Hirschberg's and ours, for instance) it formed a bright, white, tendon-like ring of characteristic appearance. This ring and the scanty cords arising from it seemed to be the main supports of the foreign body.

10. The functional disturbances consisted at first in obscuration of the visual field and impairment of vision, later in a permanent scotoma corresponding in location to the foreign body, but being mostly larger than could be expected from the ophthalmoscopically determined size of the foreign body or the lesion in the retina, because not only the percipient elements of this spot, but also the nerve fibres passing through it, must have been destroyed. In one case (Snell) a defect in the visual field could not be detected, but, as Hirschberg remarks, it would have been found had the field been perimetrically examined.

The central acuteness of vision was more or less good in all cases; in some (Jacobi, Hirschberg, Snell, Gruening, and ours) it was normal.

COLOR BLINDNESS IN DENMARK.—Dr. O. E. de Fontenay (*Archiv Ophth.*, March, 1882), from examinations in Denmark concludes:

1. The number of color blind is 2.25 per cent. (both sexes together).

2. Color blindness is more common among men, in the ratio of 3.44 per cent. to 0.42 per cent.

3. It is more common among the lower classes, 3.89 per cent. to 3.09 per cent.*

4. It is equally distributed over the whole country.

5. Red-blindness is more common than green, approximately 2 to 1.

6. The defect exists always in both eyes.

7. The color of the eye has no effect.

It must be finally said that the more numerous the examinations the smaller the per cent. found. The classification into red and green will be also affected. Cohn's recent tests in Breslau show this.

CONGENITAL DISPLACEMENT OF THE LENS.—Dr. F. E. D'Oench (*Archiv Ophthalmology*), from a careful study of this subject, concludes:

1. Ectopia of the lens is a malformation, the causes of which, thus far, remain unknown.

2. It always affects both eyes, generally in a symmetrical manner.

3. The direction of the displacement is almost always either upward, upward and inward, or upward and outward.

4. The lenses are generally transparent; sometimes their size is below the mean.

5. The suspensory ligament is sometimes found, sometimes not.

6. In about one-fourth of all cases there is myopia.

7. The position of the lenses may remain unchanged throughout life, but spontaneous dislocation may also result.

8. Heredity has been proven.

Otology.

DEAFNESS AFTER MUMPS.—Dr. G. Brunner (*Archiv Otology*, June, 1882), from a record of five cases, deduces the following symptoms and course of this affection:

1. The nervous deafness after mumps can be one-sided or double-sided, the former being more frequent (three in five cases).

2. It is complete, and, according to past experience, is incurable.

3. It develops rapidly in all cases (that is, in a few days), with vertigo and subjective noises, the latter symptoms lasting a long time.

4. There is little or no fever, as it was not noted in any of the above cases.

5. Pain is never or very seldom present; it is only recorded in one of Buck's cases.

6. Consciousness is not lost, nor is there any other symptom present except the excessive vertigo.

7. It happens in children and adults; in the majority of the reported cases it was the latter.

***By letter of date June 14, 1880, Dr. de Fontenay says: "My impression is that social condition has no effect on the proportion of the color blind; Magnus thinks otherwise."**

As is evident the disease has many similarities to Voltolini's and Ménière's disease, but is more like the former than the latter. The vertigo, staggering gait, and subjective noises are common in all three. It differs from Voltolini's disease in the absence of fever, the slight disturbance to the general condition of the patient, and the absence of psychical excitation (coma, etc.), and also in that the deafness after mumps is generally one-sided, while Voltolini's disease is generally bilateral; the latter seems also to occur only in children. The difference is therefore more quantitative than qualitative, which may be accounted for by the ages at which they occur. It is therefore necessary in morbus Voltolini to exclude epidemic parotitis.[*]

Toynbee[†] has already located the disease in the labyrinth, which is most probably correct. How it gets there we do not know. Roosa's opinion that it goes from the canal into the tympanic cavity, and from there into the labyrinth, is combated by the fact that neither the canal nor the tympanum are affected.

AURAL VERTIGO.—Dr. C. H. Burnett (*Philadelphia Medical Times*, June 3, 1882) concludes a paper on this subject thus:

1. That there are two sets of fibres in the auditory nerve, viz., the sensory and the motor.
2. That the motor filaments are connected on one side with the cerebellum by means of the inferior peduncles, and on the other side with the nerve-filaments sent to the ampullæ of the semi-circular canals.
3. That irritation of these ampullar nerves may be conveyed from either of the three parts of the auditory apparatus, or from the auditory nerve itself, in the mechanical form of pressure, and that this irritation may be further conveyed to the cerebellum and cause vertigo: so that it logically follows that this reflex cerebellar phenomenon as produced by aural irritation should receive the general denomination of *aural vertigo*, and that Ménière's disease is only a form of aural vertigo. Hence the latter name, unless used after accurate diagnosis of a disease originating in the labyrinth—*i. e.*, in the semi-circular canals—will create confusion. But it should be said, in justice to Ménière, that, so far as the writer knows, he has never claimed a general application of his name to all forms of aural vertigo. It has been so applied only by well-meaning but inaccurate diagnosticians.

Physiology.

DESTRUCTION OF DIGESTIVE FERMENTS IN THE ALIMENTARY CANAL.—*The Journal of Physiology* (The Practitioner) gives the following contribution to our knowledge of the natural history of digestive ferments:

Of late years the use of digestive ferments has very considerably increased. It is not uncommon to give patients with weak or disordered digestion extracts containing pepsin or trypsin, in order to aid the conversion of proteids into the peptones. But while this increase in the use of extracts containing ferment by physicians has been going on, little has been done by physiologists to add to our knowledge of the conditions under which the administration of these ferments may, with confidence, be regarded as profitable or profitless. Some of these conditions are pointed out by Mr. Langley of Cambridge. He finds that these digestive ferments which are secreted in a neutral or alkaline fluid are rapidly destroyed by acids, and that those which are secreted in an acid medium are rapidly destroyed by alkaline salts. Thus the ferments of saliva and pancreatic juices are destroyed in the stomach, the ferments of the gastric juices are destroyed in the small intestine.

Hence it is very improbable that a pancreatic extract given with food aids digestion to any appreciable extent; the trypsin and other ferments contained in it are rendered ineffective before they reach the duodenum. By some a pancreatic extract containing zymogen (*i. e.* a substance capable of giving rise to ferment) is recommended as being preferable to one containing ferment; it is, however, as useless to give pancreatic zymogen as to give pancreatic ferment, since the zymogen is split up in the stomach and the resulting ferment then destroyed, and since further, supposing any zymogen did escape untouched from the stomach, it would remain as zymogen in the alkaline fluids of the small intestine and so be incapable of aiding digestion by providing the appropriate ferment.

The rapidity with which the sugar-forming ferment of the salivary glands or pancreas is destroyed by the acid of the gastric juice, shows that an extract of either of these glands can have very little effect upon starch in the stomach. The effect is indeed confined to a short period at the beginning of gastric digestion. We have reason to believe that for about three-quarters of an hour after a meal there is no free hydrochloric acid in the contents of the stomach, probably the acid is neutralized by the alkaline constituents of the food and of the saliva. During this time the conversion of starch into sugar could go on. Since pepsin cannot act in a neutral fluid and is destroyed in an alkaline one, pepsin extracts would perhaps be given to most advantage three-quarters of an hour to an hour after a meal, at the time when free hydrochloric acid makes its appearance.

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[*] In the case of children the question in both diseases is as to an infectious labyrinthitis with rapid serous exudation. This is a suggestion which I purposely underscore. If we think of a labyrinthine hemorrhage in Ménière's disease, we could explain all three conditions by considering that there was a rapidly increasing labyrinth pressure.

[†] He speaks of a complete disorganization of the nervous apparatus in the labyrinth, and of a dark-colored fluid in the vestibule and cochlea. I regret that his descriptive catalogue is not at my disposal.

ON THE NUTRITION OF THE CORNEA.—Pflueger (*Ophthal. Review*, June, 1882) has by a new method been able to re-study this question:

The recently discovered substance Succinyl-fluorescein ($C_{10}H_{12}O_6+3HO_2$) has the property of imparting an intense green fluorescence to alkaline solutions even when highly diluted. Pflueger applied a few drops of a ¼ per cent. solution to the conjunctival sac of a rabbit, and found that in a few minutes the surface of the cornea acquired a slight but distinct green fluorescence; the intensity of the latter was increased when the cornea was lightly rubbed by means of a finger placed on the upper lid. In order to further promote the imbibition of the fluid he next made some slight scratches in the corneal epithelium, and immediately obtained a deep green coloration, passing in every case from the defect in the epithelium towards the centre of the cornea.

When a scratch was made near to and parallel with the corneal margin the coloration proceeded in a radial direction, affecting exactly the corresponding sector, the apex of the colored triangle being at, or a little beyond, the centre of the cornea. When a similar scratch was made midway between centre and periphery the color passed rapidly along the central portion of the sector as before, while in the centrifugal direction it travelled very slowly and only to a distance of about 1 mm. A round abrasion of the epithelium at the centre of the cornea acquired only a narrow colored border.

Small incisions into the conjunctiva close to the corneal margin, and the same combined with incisions into the subjacent sclera, led in precisely similar manner to coloration of the corresponding segment of the cornea, the situation of the coloration, as regards its depth in the corneal layers, appearing to vary with the depth of the incision.

It was further ascertained by evacuating the anterior chamber with a fine syringe that coincidently with the coloration of the cornea the aqueous fluid acquired a distinct green fluorescence. On the other hand, it was found that when the aqueous fluid was colored by direct injection into the anterior chamber the cornea, several hours later, remained completely free.

From these observations, Pflueger concludes that the cornea receives its nutrient lymph from the vessels of the conjunctiva and sclera; that the streams traverse the cornea in a centripetal direction and meet at the centre; that fluid passes through the cornea in a backward direction, and from it into the anterior chamber; and that no fluid of any appreciable amount passes in the opposite direction, *i. e.*, from the anterior chamber into the cornea.

ACTION OF CILIARY MUSCLE.—Dr. W. C. Ayres (*N. Y. Medical Journal*, May, 1882) concludes a careful study of this subject thus:

First, that it is a *true muscle* controlled by the oculo-motorius nerve; secondly, that, by its contraction, *it pulls the choroid forward*, thereby relaxing the suspensory ligament (experiment of Hensen and Völkers); and, as this ligament is relaxed, the lens, being elastic, bulges out its anterior surface (Langenbeck and Helmholtz), and this accomplishes accommodation; thirdly, that there are two sets of systems of muscle fibres—the one having a circular or sphincter-like arrangement (Mueller), the other being a radial muscle (Bruecke); fourthly, that these two sets, when they contract, tend to produce the same effect, and their anatomical structure, coupled with the fact that they are controlled by the same nerve, forbids us to consider them as antagonistic; fifthly, that the probable antagonist of the ciliary muscle is the elastic tissue in the choroid; sixthly, that we are ignorant of the embryonic relations which lead to the various conditions of hypermetropia, myopia, etc. I would add, as probably true, that the various conditions of ciliary muscle in hypermetropia and myopia are the result of heredity and education. I would base these conclusions upon the fact that, of all animals possessed of hypermetropia, none of them exhibit a sphincter unless the anomaly of refraction is accompanied by habits peculiar to the higher order of life, etc. The condensation and rarefaction theory of Loring may possibly be a cause, but it is not the only one.

Practical Medicine.

BACTERIA—THEIR RELATION TO THE ETIOLOGY OF DISEASE.—Dr. C. O. Curtman (*St. Louis Courier of Medicine*, August, 1882), thinks the present state of our knowledge on the above subject is fairly stated as follows:

1. That it is proven that multitudes of spores of microscopical organisms, both animal and vegetable, are suspended in the atmosphere, and are disseminated by it.

2. The difficulties to be overcome in their investigation are yet so formidable that up to the present we have but little accurate knowledge of many of these organisms, although capable men are at work to elucidate the biology of some of them.

3. That the life-history of a number of individual species of bacteria has been sufficiently studied to recognize them with certainty as producers of specific processes of disease, fermentation and putrefaction.

4. That one of the most important practical results of recent investigations is the light thrown upon the relation of the modified virus of protective inoculation to the non-modified virus of some infectious diseases, and the reasonable hope held out thereby of obtaining material for protective inoculation against other diseases, not as yet amenable to such treatment.

5. While analogy may justify the hope that other diseases besides those now known may be proven to result from bacterial invasion, and that we may attain to a more successful mode of treatment by such discoveries, it is unsafe as well as unscientific to assume identical causes for similar appearances, and we must content ourselves to suspend our judgment until really qualified investigations have placed the facts, *in each individual case*, above any doubt.

HYPERPYREXIA IN ACUTE RHEUMATISM.—A committee of the London Clinical Society, after a full investigation, report the following conclusions. (*British Medical Journal*, June 3, 1882):

1. Cases of hyperpyrexia in acute rheumatism appear to prevail at certain periods, having in the last decade been remarkably numerous in the years 1873–76, whereas latterly they appear to have been much less frequent. Such excess corresponds in a certain degree, but not in actual proportion, to a similar excessive prevalence in acute rheumatism generally. The largest number of cases of hyperpyrexia arose in the spring and summer months, whereas rheumatism is relatively more common in the autumn and winter.

2. Whilst very little difference obtains between the two sexes in regard to proclivity to rheumatism, the proportion of males to females exhibiting hyperpyrexial manifestations is 1.8 to 1. But as to age no such marked difference exists; nor as to occupation.

3. The subjects of hyperpyrexia show no undue rheumatic tendency as regards family predisposition.

4. The cases of hyperpyrexia preponderate in first attacks of rheumatic fever.

5. Hyperpyrexia is not necessarily accompanied by any visceral complications, but may itself be fatal. The complications with which it is most frequently associated are pericarditis and pneumonia.

6. The mortality of these cases is very considerable, hyperpyrexia being one of the chief causes of death in acute rheumatism.

7. Although present in a certain number of cases, and these of much value from their prodromal significance, neither the abrupt disappearance of articular affection, nor the similarly abrupt cessation of sweating, is an invariable antecedent of the hyperpyrexial outburst.

8. The supervention of delirium or other symptom of nervous disturbance is very frequently either antecedent to or simultaneous with the hyperpyrexia.

9. There is considerable variability in the date of the occurrence and in the duration of the hyperpyrexial condition, ranging, according to our observations at least, from the fourth to the thirtieth day.

10. When death results, it has occurred mostly in the second and third weeks of the rheumatic attack.

11. The post mortem examinations in a certain proportion elicited no distinct visceral lesions; and when present, the lesions were not necessarily extensive.

12. The prompt and early application of cold to the surface is a most valuable mode of treatment of hyperpyrexia. The chances of its efficacy are greater the earlier it is had recourse to. The temperature cannot safely be allowed to rise above 105°. Failing the most certain measure—viz., the cold bath—cold may be applied in various other ways: by the application of ice, by cold affusions, ice-bags, wet sheets, and iced injections.

The committee have not thought it advisable in the present report to enter into theoretical considerations; and, limiting the study of hyperpyrexia to the records of 67 cases of acute rheumatism have deemed it premature to enter into physiological reasonings until the same conditions have been reviewed in other acute febrile diseases.

SALISBURY ON THE TUBERCLE PARASITE.—Dr. E. Cutter (*Gaillard's Medical Monthly*, May, 1882) says:

Now the theory originated by Dr. James H. Salisbury of this city is that consumption is due ordinarily to the presence of the mycoderma aceti or vinegar yeast in the blood, lungs, skin and sputa. This tallies with Dr. Koch's researches. The bacilli which he describes are simply the babies or embryonic forms of the mycoderma aceti. It is a vegetable parasite and not animal. Any one can study vinegar yeast in sour beer and cider. The evidence on which the theory rests is as follows:

1. In 1858 the propounder took (1,026) ten hundred and twenty-six hogs and fed them on farinaceous food containing alcoholic and vinegar fermentation vegetations. In eight weeks' time, all the swine being more or less sick, (246) two hundred and forty-six swine died. One hundred and four of them were examined after death and found to have the physical appearance of consumption of the lungs. The vinegar yeast was found in the blood of all examined and traced to the lungs and skin. Per contra, after slaughter no trace of tubercle was found in one hundred (100) swine that had been kept in open air and fed on good sound sweet maize.

2. He hired men by the month and fed them on farinaceous food containing alcoholic and acetic acid fermentations. After they had had consumption of the bowels, the vinegar yeast was detected in the blood and sputa.

3. Several thousand persons have been treated for consumption on the plan of getting rid of the parasitic vinegar yeast or mycodermi aceti by starving it out and by putting the system in splendid order through hygiene and medicine. The treatment has been guided and governed by means of the morphology of the blood, sputa, skin and other excretions. This has involved a multitude of examinations by means of the microscope, which thus becomes more than a toy—an instrument of precision for the accurate handling of disease.

4. *Cure.* There are some (5,000) five thousand persons living in this country who would smile if they read the hopes expressed that consumption might be cured, for they have passed through this experience themselves. This is not the place to emphasize this statement, but it may be right to refer to the publications that have been issued, and to the medical and other bodies to whom this theory of consumption has been more or less fully brought to notice. Please see appendix. If then Dr. Koch is worthy of high praise shall not Dr. Salisbury receive some meed?

AMERICAN DYSPEPSIA.—Dr. J. H. Robbins (*Medical News*, June 24, 1882), gives the following:

He inclined to the opinion that the same delicacy of stomach prevails in Great Britain and on the European Continent as in this country, but he announced that in considering dyspepsia among our own people, he wished to emphasize the fact that, more than of anything else, it is the result of neurosal causes. American dyspepsia seems so be without a morbid anatomy. Some of the principal causes assigned for it are rapidity in eating; unsuitable or improperly prepared food; over-eating, a very common bugbear; the use of ice water; and the universal use of fine flour. One great principle in nature is apt to be overlooked by theorists, viz., the very remarkable power of the human system of adapting itself to all sorts of dietetic conditions and even enormities, and appearing to thrive upon them. Causes of a neurosal nature have a much more extended and detrimental effect on digestion than those previously mentioned. The evil effect on the digestive processes of bad news, fear, worry, mental strain, is well known to every physician, while the pleasurable emotions, a contented mind, success, etc., contribute to eupepsia. These neurosal causes operate with especial power upon the present generation of the Anglo-Saxon race. Our parents and grandparents expended to a great degree their own vital powers amid the rapidly changing scenes of a new country, and have transmitted to their children delicate and neurotic constitutions.

Among the causes which are acting upon large classes of our population are, 1st, the manner of rearing our children, who, weakly at the start, are forced into precocity by various means; 2d, school teaching; 3d, lack of simplicity and honesty in living; 4th, business strain, worry, and apprehension; 5th, the present unsettling of religious beliefs; 6th, the state of the weather; 7th, valetudinarianism.

We may be powerless to stay or modify the influences of the present phase of our civilization upon the nerves and stomachs of the Anglo-Saxon race in this country, but by being aware of these influences we may find means outside the materia medica to benefit many a patient to whom drugs alone can bring but little help.

Life-History of Bacillus Anthracis.—This as given by Koch, is summed up by the *British Medical Journal*, July 1, 1882, thus: In marshy districts, at the borders of rivers, etc., there is in the warm months a plentiful development of the spores of bacillus anthracis in parts where the suitable plants or subsoil are present—these spores being able to retain their vitality till the following season, when they again spring into life. When floods occur, these spores are carried away with the mud and deposited on the flooded meadows, where they become mixed with the food of the animals; and, if suitable conditions be present, develop in warm weather, and lead to the infection of the cattle or sheep grazing on the pasture. They generally enter the body through the intestine; develope there; kill the animal; are scattered over the ground in the blood and urine which flow from the animal; form spores; and are then ready to develope further, if the favorable conditions which have just been mentioned come into play; or they will cause anthrax, if taken into the living body.

Surgery.

Intestinal Obstruction, Various Facts and Views Thereupon.—*The New York Medical Journal*, July, 1872, gives the following account of an interesting discussion upon the above subject.

The case was narrated by Dr. Austin Flint. The patient was a man, about sixty years of age, who had suffered from constipation for several months, which became worse, and finally resulted in complete obstruction as regarded the passage of fæcal matter. Gas, however, escaped in considerable quantity. There was no febrile movement, no evidence of chronic peritonitis; there was considerable tympanites. Efforts were made to overcome the obstruction, first by the careful administration of saline cathartics, and afterward by injections carried up as far as possible by means of a flexible tube, but without success. After death a stricture was found, seven or eight inches above the rectum, which would admit the end of the little finger. A more careful examination would yet be made to determine its nature.

Dr. Flint said that he had in his possession a calculus which had been removed from the small intestine, just above the cæcum, where it had remained for more than twenty years. It was sent to him, with a short history, by the physician who attended the case. It was cuboid in form, and measured on either surface more than two inches. Its presence during life was evinced by a tumor in that region, and frequently it gave rise to a good deal of inconvenience, though not to grave symptoms. The patient was able to continue his occupation, shoemaking.

Dr. H. B. Sands remarked, with regard to the size of this calculus, that cases were on record of calculi of much larger size remaining in the small intestine without producing obstruction. They had also been found in a sort of pouch in the duodenum. If, however, such a calculus occupied the small intestine proper, and there were no dilatation on one side of it, it would be very sure to produce obstruction—generally complete. He had not been able to find the record of many cases of intestinal obstruction from gall-stone of so great a diameter as this one. It seemed to be a cast of the gall-bladder. The nature of the present case was obscure for many reasons, one of the most conspicuous being the absence of pain. The symptoms of this form of obstruction were known usually to be very acute. In his reading he had seen no other instance of absence of pain. A number of cases were on record in the "Medico-Chirurgical Transactions" and elsewhere of calculi as large as this one being passed *per anum*, sometimes after a brief illness, and sometimes after an illness of six or seven days' duration. In some of these cases the patient's life had been despaired of. In none of those cases which ended in recovery had the diagnosis been made until after the passage of the gall-stone. In some there was fæcal vomiting. In the most interesting case the symptoms were thought to be explained by the presence of a large inguinal hernia containing intestine, and it was proposed to operate, but the patient objected. Subsequently spontaneous relief came on the passage of a gall-stone, which must have traversed the intestine in the hernial sac. In some of the cases of recovery opium and belladonna had been given; in others, cathartics. In one case three minims of croton-oil were given, which was soon followed by the expulsion of the concretion. The only statistical account he had found of intestinal obstruction from gall-stone was contained in a memoir on this subject by Duchaussoy. That author gave an account, in more or less detail, of twenty cases, in six, or thirty per cent., of which the patients recovered. Dr. Draper had stated the reasons which had led to a decision not to operate in this case, but of course it was a great disappointment to find, at the autopsy, an obstruction which might have been removed by mechanical means. Had he found the gall-stone before death, he would have removed it. The only reason why he failed to discover it when making manual exploration by the rectum was, that the band of peritonæum which passed across the middle part of the rectum was so very tight that it prevented the hand from making its usual excursions. He was convinced, however, that, had his hand passed that point, as it usually could do, he would have felt the calculus, because it was well below the level of the umbilicus. He thought, should he meet with a similar case, or indeed with any obscure case of acute intestinal obstruction, he would propose to make a manual exploration of the rectum in the earliest stage, because it could then be made with the best prospect of gaining information, which sometimes could not be obtained simply because the intestine was distended with gas; and because, if indications for an operation were afforded, it could be undertaken early with the greatest chances of success. Although he would have removed the calculus in this case, had he discovered it, he was exceedingly doubtful as to what the result of the operation would have been. The patient's age, and the structural changes in his tissues, as revealed by the post-mortem, would have made the chances of success very small; and, besides, so far as experience went, there was no recorded success from such an operation. The first operation, which was undertaken for the removal of a gall-stone was performed in 1879, by Mr. Bryant, at the end of seventy-two hours after the occurrence of obstruction. The patient died eight hours after the operation, in consequence, it was said, of its not having been resorted to early enough. It was also done by another surgeon about the same time. The patient died very shortly after the section was made. Dr. Sands was extremely doubtful whether the percentage of recovery after laparo-enterotomy for gall-stone would ever exceed, or even reach, that recorded by Duchaussoy; but where the cause and location of the obstruction could be determined, he should recommend abdominal section and the removal of the gall-stone as the proper course of treatment.

The Chairman asked whether in any of these cases there were any early symptoms pointing to the passage of the stone through the ductus choledochus.

Dr. Sands replied that there might have been in one or two of the cases, but such was not the rule. The stone usually found its way into the intestine through an artificial opening caused by ulceration.

The Chairman remarked that he had met with two cases in which death occurred during retention of the stone in the ductus choledochus.

Dr. Draper remarked that careful inquiry was made into the early history of this case with regard to the occurrence of hepatic colic, but there was no evidence that the patient had ever suffered from the passage of gall-stones.

Dr. F. Walker said that about five years ago he had a case of obstruction of the intestine from gall-stone in which the patient recovered. The length of the stone was three inches and a half, but its short diameter was less than in this one. The obstruction was attended by violent vomiting, the matter vomited being of a stercoraceous character. It continued for five days, when it suddenly ceased on the occurrence of free fæcal movements. At this time the cause of the obstruction had not been diagnosticated. The day following the patient complained of irritability about the rectum, and a desire, with inability, to have a movement. Dr. Walker was obliged to relieve him manually of a mass within the rectum, which proved to be the gall-stone. Dr. Walker supposed the acute attack of peritonitis a year previous was caused by the passage of the gall-stone through an ulcerated opening into the intestine; that it remained there, innocuous as regarded obstruction, nearly a year, and then obstruction came on suddenly and was complete.

Dr. Alonzo Clark said that in a case which he witnessed, and, he believed, made the autopsy, some years ago, the lady died of peritonitis, and a large abscess was found immediately below the liver, bounded by the liver above and by adhesions of the intestines below and laterally. The sac would contain probably a quart of pus. The inflammation had extended to the general peritonæum. In removing the pus from the sac in which it was contained, at the bottom of it a biliary calculus was found, very black on the exterior, somewhat angular in shape, perhaps two-thirds of an inch in diameter. The interpretation of the case at the time was, that this large calculus had attempted to make its way from the gall-bladder into the intestine in the way which had been described to-night, and that, the ulcerative process not affecting the intestine, it had dropped into the space immediately below the liver; that it had there produced the abscess, and the abscess in its turn had produced inflammation which spread over the whole of the peritonæum. It occurred to him that these stones, after lying in the intestine some time, might become covered with calcareous matter. Some of the gentlemen would remember a concretion found in the intestine by Cruveilhier, which, perhaps, was more than six inches long, and of a diameter considerably greater than the ordinary size of the small intestine. It was impossible for it to be expelled, and it was found after death. It was made up almost entirely of calareous matter, and had doubtless been many years in forming. With regard to the disposition in certain substances in the intestine to become covered with calcareous matter, he could refer to an instance in a child who had perforation of the vermiform appendix. The substance which had caused the ulcerative process leading to perforation was a rounded concretion, which was very hard, and, by permission of the attending physician, he took it home with him and made a careful examination of it. It was made up of alternating layers of calcareous and fæcal matter. The outside layer was hard and resisting, and effervesced on adding an acid; under that was a layer of fæcal matter, and probably nothing else; then a layer of calcareous matter—and so on, alternating, their being in all five rings. The central point was a strawberry seed.

Dr. J. T. Metcalfe said that about thirty years ago he attended a German,fifty years of age, who had been ill a long while with pain in the abdomen and vomiting. All of the physicians who had seen him thought he had cancerous disease of the stomach. When Dr. Metcalfe saw him he was very much emaciated, the vomiting was not stercoraceous. A tumor could be felt distinctly at the pylorus, which he believed to be a cancer. The patient died, and at the autopsy there were found a large number, perhaps as many as twenty, of large and small gall-stones just outside of the duodenum, the facets on which showed that at one time they had been in apposition in the gall-bladder. They were composed of very nearly pure cholesterine. There was no cancer at all, nor was there a gall-bladder that could be made out. It had been destroyed by ulceration, and the calculi had formed a nest for themselves near the pylorus. Everything about the proximal end of the duodenum had been bound together as a result of local peritonitis, and the duodenum was so narrowed that the contents of the stomach could not pass. The color of the skin was rather that of cancerous cachexia than of jaundice. The case was interesting to him at that time because of the failure of diagnosis on the part of all the physicians who saw the patient, and they were many.

Dr. Francis Delafield remarked that, notwithstanding the history in Dr. Draper's case would seem to point to the very recent passage of the calculus from the gall-bladder into the intestine, the outside appearance was not that of a biliary calculus, and the history would be more complete if the stone were sawn open and examined.

Dr. F. N. Otis said he had a case to narrate, which, however, was not among the fatal list. The patient, a gentleman, last year had an attack apparently of ordinary biliary colic, which continued for nearly twenty-four hours. He had had several attacks before. Previous to the present one he had had several passages from the bowels, accompanied by pain and vomiting, two symptoms which became greatly increased as it became evident that there was some obstruction in the intestine. Salines were first administered. A large amount of morphia had to be given to keep patient quiet and relieve him of pain. When an obstruction was suspected an O'Beirne's tube was introduced. A considerable amount of fæcal matter was removed, but the symptoms did not abate. About two quarts of warm gruel were injected, with the tube inserted its whole length, without result, but at the second application there occurred sudden gurgling and almost immediate relief from pain and vomiting, and not a great while afterward there was a full fæcal discharge from the bowels. He supposed the case was one of intestinal intussusception, relieved suddenly by distention from the gruel on about the third day. The vomiting had not been stercoraceous.

Dr. R. F. Weir, who arrived late, also referred to Mr. Bryant's case, and to another reported by Dr. Arnison, in a recent number of the "*British Medical Journal*," in which there was an oblong tumor on the right side of the abdomen, which was supposed, from the symptoms present, to have been the seat of intestinal invagination. It was cut down upon, and on opening the mass, which was situated behind a coil of intestine, a quantity of blood was removed, in which was a biliary calculus of considerable size. There had been a history of hepatic colic. The patient died, and at the autopsy the gall-bladder was found not to have ulcerated into the duodenum, but into the subperitoneal tissues, and to have injured a branch of the hepatic artery, which was the source of the hæmorrhage. His own experience with severe intestinal obstruction within the past year comprises four cases, two of which proved fatal. One of the fatal cases was that seen with Dr. Draper. The second one he saw with Dr. Weber. It was in a young Spaniard, who had had, when he saw him, symptoms of acute intestinal obstruction for several days. He supported the opinion of Dr. Weber, that laparotomy should be performed, although neither the cause nor the position of the obstruction could be determined. The patient was etherized, but symptoms of exhaustion appeared so markedly that the operation was desisted from. The patient did not rally but died a few hours later. At the autopsy a portion of the intestine was found incarcerated in an abnormal mesenteric opening in such a way that it would have been extremely difficult to discover had laparotomy been performed. The other two cases of obstruction were severe, and were instructive because the patients recovered. One of the cases might throw some light on the question whether fæcal vomiting could be associated with a removable obstruction, such as an accumulation of fcaæl matter. The patient, a woman had suffered from intestinal obstruction for three days when we saw her, and during the last twenty-four hours there had been stercoraceous vomiting. Dullness existed in the right hypochondriac region. The physician who summoned him in consultation said that, in consequence of the administration of opium within the past twenty-four hours, the temperature had decidedly fallen. No other symptoms were present; no tenesmus; nothing could be felt *per rectum*. There was considerable abdominal distension. Large enemata, which had been given, were continued, as the prompt subsidence of the temperature under the use of anodynes was looked upon, from a considerable experience, as somewhat indicative of fæcal accumulation; and in the course of forty-eight hours she began to have dejections, the symptoms ameliorated, and she recovered. In the other case a man had had symptoms of obstruction for four days, and within the last twenty-four hours of that time the matters vomited had become stercoraceous. An obscure tumor was felt in the right inguinal region, at the site of an old hernia. The hernia, however, had not descended for a long time before. The symptoms were so urgent that the question of laparotomy was seriously entertained by Dr. Markoe and Dr. Sands, who saw the case with him. They waited a few hours, however, to temporize with the case, and during that time the symptoms began to amend, the vomiting became less frequent, large injections were resorted to, a stool was obtained, and the patient recovered. Such cases as these made us hesitate about operating early (as we should do, to obtain the best results) in cases which demanded it as shown by the subsequent history. Patients died in cases of intestinal obstruction, not from peritonitis, for that was of rare occurrence, but from sudden collapse or exhaustion. Of ninety-two cases given by Larguier, in only eighteen was there peritonitis. Dr. Weir thought that the division into acute and chronic intestinal obstruction was a misleading one in practice. The so-called chronic obstruction, as from stricture, etc., might give rise to all the signs of an acute obstruction, such as pain, distension, and fæcal vomiting. We should rather endeavor to distinguish between obstruction in the small intestine and that in the large intestine. Duchaussoy found that, of 500 cases of obstruction, 134 occurred in the large intestine, and, deducting from this number that of cancerous affections, there remained fifty or sixty due to fæcal or other masses. One of the chief questions for the future was, therefore, to determine whether the obstruction was located in the large or in the small intestine; and, in order to settle this point, and decide whether it were proper to perform laparotomy, excluding the clearer cases where a tumor existed, he should, after pain, distension, and especially fæcal vomiting had been present a short time, say forty-eight hours, proceed at once to etherize the patient so as to make (what could not otherwise well be done) a careful examination by thorough palpation of the abdomen, and by the introduction of a small-sized hand into the rectum. The question as to the seat of obstruction being in the large intestine might be determined without making such extensive manipulation with the hand in the rectum as was sometimes spoken of for in most cases of obstruction of the lower bowel it was only necessary to ascertain the condition of the cæcum which could be effected by the mobility of the rectum allowing of the excursion of the hand sufficiently without passing through the sigmoid flexure.

Dr. Metcalfe asked with regard to the dangers of explorative incision. He had felt with Dr. Sands and Dr. Weir regret for not having operated when at the autopsy it was found that the cause of obstruction and death was simply mechanical, and that it could have been removed by operative means. In one instance, which occurred in Bellevue Hospital, forty-one inches of large and several loops of small intestine had passed through an opening in the mesentery and were strangulated. In two others the obstructive cause consisted of trifling, thread-like bands, but sufficiently strong to cause strangulation. He had been much surprised at the great tolerance of the intestines to manipulation in the hands of the ovariotomist, and in view of this fact he asked if it was not the surgeon's duty to his patient in many instances to open the abdomen and search for the cause of intestinal obstruction.

The Chairman remarked that the great majority of cases of intestinal obstruction which were not relieved by cathartics within twenty-four hours proved fatal.

Dr. Flint said, with reference to Dr. Metcalfe's question that a very interesting case had been reported in a late number of the "Transactions of the Clinical Society of London." The case was one of intestinal obstruction. A large incision was made into the abdomen, revealing what was supposed to be the cæcum enormously distended. The small intestines were also very tympanitic. They were all taken out of the abdominal cavity and covered with a flannel wrung out of warm water, for protection. A large trocar was introduced into the cæcum, and a very large quantity of fæcal matter was removed. The flannel which covered the intestines was found to be new, and, when removed, its filaments adhered to them. Moreover, there were cracks in the peritoneal coat of the intestine in several places. These were stitched up, and the incision in the abdomen was closed, a tube being left in the cæcum. Fæcal matter continued to pass through the tube several days, but the healing process went on perfectly well, and after a short time the patient passed fæces by the natural channel. The cause of the obstruction was never discovered. The patient recovered.

FOREIGN BODIES IN THE AIR PASSAGES.—Dr. J. R. Weist (*Medical News*, June 17) concludes a paper on this subject thus:

This paper was statistical, and contained generalizations from over one thousand cases which he had collected. The conclusions to which he had been led differed from those of most text-books, but were founded upon a careful comparison of the results obtained by prompt surgical interference and those which followed spontaneous expulsion. His conclusions were:

1. When a foreign body is lodged either in the larynx, trachea, or bronchia, the use of emetics, errhines, or similar means should not be employed, as they increase the sufferings of the patient, and do not increase his chances of recovery.
2. Inversion of the body and succussion, though sometimes useful, are dangerous, and should not be practised unless the windpipe has been previously opened.
3. The presence simply of a foreign body in the larynx, trachea, or bronchia, does not make bronchotomy necessary.
4. While a foreign body causes no dangerous symptoms, bronchotomy should not be performed.
5. While a foreign body remains fixed in the trachea or bronchia, as a general rule, bronchotomy should not be practised.
6. When symptoms of suffocation are present, or occur at frequent intervals, bronchotomy should be resorted to without delay.
7. When the foreign body is lodged in the larynx, there being no paroxysms of strangulation, but an increasing difficulty of respiration from œdema or inflammation, bronchotomy is demanded.
8. When the body is movable in the trachea, and excites frequent attacks of strangulation, bronchotomy should be performed.

DETROIT LANCET.

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Some Points in the Management of Fevers.

BY PROF. J. A. LARRABEE, M. D.

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THE observable phenomena which constitute a fever are too familiar even to the laity to require description. A synonym for the term is found in every language and the condition which it is intended to describe must have been coincident with animal life.

There is nothing in the recorded history of medicine which is more characteristic of decline and progress of conjecture and science than the treatment of a fever case portrayed by medical writers. While, however, the most opposite views have obtained in regard to treatment at different periods in history, the febrile condition is the same as it was when Peter's wife's mother lay sick. From whatever standpoint we consider the functional disturbance, fever must be regarded as one of the conservative forces of nature and not only one, but one of the most important, whether we consider the so-called idiopathic or that of traumatic origin. Fever represents the reactionary power of the system; by this process injuries are repaired, morbific agencies destroyed and poisons eliminated. To guide or conduct the process to a safe termination, therefore, becomes the province of the physician. The type which a fever may assume is oftentimes an indication of the constitutional vigor of the patient rather than a difference in the cause operating to produce it. The day in which the "fever curer" was an accepted term in the profession has passed away, and, with the gold-headed cane and powdered wig lives only in the retrospective picture. While we are ever ready to decry the Sagrado bleeding, tartar emetic and calomel of a former period, there is little cause for congratulation in hyper-medication still in vogue to meet the inevitable consequences of a fever poison.

The simplest of all fevers is that commonly met with in the child after exposure, known as ephemeral fever. The accession is sudden, the temperature high, and, as a consequence of the latter, the disturbance of the nerve-centres considerable; but, while various apprehensions fill our minds as to future developments, the fever subsides, the storm is passed, no trace is left and no treatment is required. Exposure to cold causes a determination of blood from the surface to the centres, oxidation of tissues has been interfered with, debris has accumulated in excess of elimination, increased oxidation is required and fever comes to the rescue. The etiology of pneumonias and rheumatism does not differ so widely. In the one the delicate pulmonary structure suffers, in the other the muscular tissue and the envelopes of the articulations is irritated and inflamed by the circulation in the blood of material destined for combustive combination, but which has been arrested by cold. When this process is arrested, as is often the case in a limited area, as in exposure to draft or air, the application of heat is able to establish the union, and relief is immediate. Various disease poisons circulating in the blood coming in contact with the delicate extremities of peripheral nerves or ganglionic centres produce a vaso-motor spasm whereby the blood is prevented from reaching the capillaries and a chill with determination of blood to the central organs of greater or less duration is the result. The reaction is in proportion and the fever constitutes the safety of the patient for these attacks at least. Were it not for the wonderful provision of nature, by which an exchange of function is established, such exposures and affluxions would be even more injurious to the system. We have often occasion to observe the serious consequence of colds in those whose eliminative organs are defective, as in disease of kidneys, and constipation of the bowels, etc.

Is it supererogatory before a convention of the best physicians in Kentucky and as skillful as can be found in any part of the world—to mention the surrounding of a fever patient? How many of us, who know better, may be found prescribing every day at the bedside of fever patients whose surroundings forbid recovery. True it is that oftentimes these things are beyond our control, yet it is also true that we are found quietly consenting to conduct a patient through the great fever in close apartments filled with furniture and draperies. I am satisfied that our success would be increased even beyond what we are proud to claim if in every instance hygienic matters were pressed as faithfully as medicine. The fever thermometer is undoubtedly a great and indispensable aid at the bedside. The ship which is drifting upon a lee shore is often saved by the marking of the lead in the hands of the sailor, but the man at the binacle hears the warning cry from the quarter-deck while he keeps his eye on the chart in the binacle and watches the vibrating needle. So with the fever thermometer, it is a very important guide, but it is not everything. Our fathers saved their patients in olden times with the lancet, tartar emetic and calomel. Is our success proportionately greater considering the improved facilities at our command? The reports of fever cases, and all cases in fact, before our societies contain little else than a daily or hourly registration of temperature and pulse. If one of the old-time doctors should happen to stray into our meetings, he would suppose that an auction was going on with rather close bidding in the one hundreds. It would sometimes be a relief, at least in these reports to hear something about the condition of the tongue, the subsultus tendinum, the relaxed capillary circulation, the iliac gurgle, the tympanites, etc., etc. The man who makes a diagnosis of Bright's disease with a test tube and spirit lamp in his laboratory, and he who yields a blind allegiance and controls his therapeutics solely by the fever thermometer can scarcely be considered a blessing to the community.

The room must be large and airy and contain a fire-place with open flue. The floor must be carpeted; the bed must be covered with a hair or cotton topped mattrass, with a deer skin upon it; this to be covered with a single sheet and a single blanket for cover. The chairs, which, with a stand, should be the only furniture, must have rubber protectors. A thermometer must be kept in a remote corner of the room and should register 65° in day time and 70° at night. Now place the patient also in the most favorable condition. If there is reason to suppose a continued or typhoid condition will follow, give an emetic 20 grs. ipecac, ¼ gr. calomel; repeat until free emesis occurs; immediately after put the patient in a warm bath, 90° to 98°, using soap sufficient to remove all unctious feeling from the skin; continue the soaking in the bath until there is evidence of depletion or sedation; put the patient to bed, allowing acidulated drinks, cool (but never iced), where he is to remain until convalescence is well established. Whenever and wherever this plan is systematically carried out it may be considered that at least one week is cut off from the duration of fever. There is an ancient painting representing disease as an insidious enemy attacking a victim and the physician standing guard swinging a club. Upon closer examination it is seen that the figure representing the physician is blind—but by swinging constantly the club he attempts to keep disease at bay. The former medication of fever patients is certainly suggestive of the picture. In the paludal fevers we possess in quinine all that can de desired. Few practitioners at the present time would wait for an expected remission to administer this great agent. In pure enteric typhus, or, as it is commonly called, typhoid fever, it has become popular to make a very bold use of quinia for the purpose of bringing down temperature, a course which neither from experience nor research I can approve for the following reasons:

1. It is not in the power of quinia to shorten the duration of this particular fever a single day. That the reduction of temperature, which in large dose it is sure to accomplish, is purchased at a risk of injury to the nervous system, which more than offsets the advantage claimed.

2. That the temperature attains its former height so soon as the quinia is eliminated, and often rises higher than before, hence to maintain a lowering it must be kept up beyond the power to eliminate.

3. That in the quantity required to accomplish this it is extremely unpleasant and heroic treatment of a fever which of all others requires little medication and much care.

4. That the wasting in typhoid fever is not so much a loss of adipose tissue as a loss of muscular fibre as shown by post-mortem examination. There is a constant muscular activity, and a twitching tendon is as suggestive as a rising thermometer. Quinia is a muscular irritant when applied no less than when circulating in excess of the demand in the blood.

5. Quinia tends to the production of menin-

geal inflammation, not by a congestive condition, but by its irritant effect upon the membranes of the brain, an effect conclusively proven in experiments upon lower animals, and also recorded in the observation of practitioners in typhoid fever.

6. Quinia in large doses produces paralysis of the vaso motor nerve centres and weakens the action of the heart.

7. In the gastro enteric irritation of typhoid fever it is a local irritant to the mucous membrane and is often expelled, after it has been some time in the stomach. In the stage of ulceration of the agglomerated glands of Peyer, or inflammation of Brunner's glands it is locally injurious.

8. That the presence of quinia in large quantities in the urine produces cystitis and adds a very annoying complication to the case, certainly not in every or even the maiority of cases, but that many cases of cystitis are due to quinia is shown by modern observers.

9. Were quinia the only means at our command for reduction of temperature we might accept these objections which are not imaginary, but are real and every one of them trne.

10. Where a careful attention is paid to the secretions, sponging, packing and bathing, together with the use of the spinal and head coils, no fear need be entertained that the temperature will be the door through which the life escapes. Temperature is one point and a very important point, but it is only one. The typhoid poison is not to be lost sight of as the main evil.

After all, the chief safety of the patient is in the power of endurance, and everything which tends to increase that power is to be held, and all which serves to diminish it laid aside. Every practitioner knows that there is a wide distinction in different patients with the same fever. It would be an unexpected result for a drunkard to recover from a pneumonic, and it is almost as hard for a rheumatic or gouty subject to get well of typhoid fever. The treatment of such diathesis when the subject of fever must vary. Such persons can barely strike a balance in elimination of waste in health. When, therefore, the excessive waste of metamorphosis due to high temperature, is added, they succumb. Diuretics, especially salines with vegetable acids, are powerful to eliminate accumulated debris from the blood and to reduce temperature, and by due attention to the amount of solid eliminated by the kidneys, delirium may be controlled.

In a portion of the country so thoroughly impregnated with malaria as the South and West, it is practically impossible to differentiate in the first few days of fever between that induced by malarial saturation and the true typhoid poison. Under these circumstances quinia becomes a most valuable aid to our diagnosis, and every judicious practitioner will commence his treatment of fever with full and telling doses of the king drug. So soon, however, as I am able to eliminate malarial origin from my diagnosis, I at once discontinue its use; nor do I recommend its administration until convalescence is fairly established, and I then prefer the muriate, with an excess of the same acid, in one or two grain doses, as a valuable tonic. I may here be permitted to add that during the autumn and winter—1881–2—I have treated 42 cases of pure typhoid fever without the use of quinia, except as above stated, with the loss of a single case, and this death I have every reason to believe was due to injudicious nursing.

During the progress of continued fevers, especially typhoid, an indication frequently arises which requires mature judgment, viz., the use of hypnotics and analgesics. In the first stages the brain may be excited and sleep disturbed or entirely prevented by too active cerebral circulation and high temperature. In typhoid, however, there is most frequently at this time gradually increasing hebetude. Later on, however, there is usually a pressing demand for something to quiet the patient and save exhaustion by "tired nature's restorative"—sleep. It is always easy to theorize and on paper depict the plain hyperæmia and the anæmia which exist in disease of the brain. I do not know that anyone will say that he is able to settle this question satisfactorily to himself at the bed side sufficiently so to prescribe a hypnotic upon this basis. If, however, the pupil be taken as a guide, it will seldom fail to indicate correctly the condition to be met and often prevent an injudicious, nay, possibly, fatal mistake.

While in the cerebral excitement of some short and sharp fevers chloral and bromide yield excellent results, they are by no means to be indiscriminately used in typhoid. If the pupils are equally dilated, remaining sluggish under the stimulation of light, and this has not been due to a previously administered mydriatic, morphia is safe, sweet and pleasant in effects; but if, on the other hand, the pupils are contracted—one or both—and the admission of light causes pain, there exists a condition of the cerebral circulation in which opium would speedily prove injurious, and from the effects of which life of the patient would be placed in jeopardy. The same in regard to bromides and chloral, which in the former condition are indicated and in the latter only serve to add to the insomnolence. Much good may be accomplished by acting upon the cerebral circulation by heat or cold, not so much to the head itself as by a physiological determination to or from the brain, which we are able to do at will by application of cold or heat over the sympathetic ganglion in the abdomen.

The use of vegetable astringents in the control of diarrhœas in course of fevers, requires great care and judgment. Their use is quite as prejudicial as beneficial. The control of peristaltic action by small doses of opium is better in most cases.

A check of secretions with dryness of mucous surfaces—the precursor of the parched tongue and fissured lip—is best met with turpentine, which is always the best stimulant, alterative and astringent in these conditions, whether it be typhoid fever or any other fever. Digitalis is an agent powerful to do good and to save life in a critical moment, but, like all good remedies, it is potent for evil as well. The symptoms which require digitalis are identical with those produced by its injudicious or too free administration. Since so great a revolution has taken place in regard to the physiological action of this medicine, there arises a new danger from its indiscriminate use. A permanent systole would be as bad a condition as a diastole and even more irremediable. And this spasmodic clamping of the heart is more likely to be the action of digitalis in typhoid fever than in any other by reason of the condition of the muscles. In algid conditions of the skin with cold perspiration, often the dew-damp of approaching dissolution, with rapid pulse, belladonna is more useful than digitalis. Every physician should be provided in his office with a better tincture of the leaves than he can get in the shops, both of belladonna, hyoscyamus and conium. I am very fond of this latter medicine in febrile excitement of the spinal cord, especially in children, but I have been obliged to cease prescribing it hap-hazard from retail pharmacists and have a fluid extract, also a solid extract. Fluid extract of seeds by Squibb and solid extract of seeds by Ellis & Son, Philadelphia.

The expectant plan of treatment in typhoid should be made to anticipate rather than succeed the development of certain pathological symptoms. Sooner or later in the progress of this fever, the solitary glands of Peyer and often other glands of the intestine which have been the probable *avenue of introduction of the typhoid poison* become necrosed and the muscular coat of the intestine is involved in the destructive process.

The condition of the tongue marks the condition of the gastro-intestinal mucous membrane and the increased muscular trembling is no less indicative of serious organic mischief in the bowels.

The eulogy pronounced upon turpentine in this and kindred conditions of the intestine in fevers many years since by the late Prof. Wood, Sr., has been sustained by the experience of many practitioners.

Turpentine should be added to the oleaginous mixture before used to control the diarrhœa. Pharmaceutical skill is nesessary in making the emulsion palatable and even pleasant and more effectual, the dose should represent about 4 ♍ turpentine, 4 ♍ ol. ricini, and 1-64 gr. morphia, and should be repeated in adult cases every hour or two. I do not believe we can fulfill so many necessary and important indications by a single drug in the whole materia medica, and whenever in typhoid or the analagous remittent of childhood or typhoid from malaria I have for any reason neglected to prescribe it in its proper place I have always been reminded of the neglect by a return of unpleasant symptoms which soon disappear on its administration.

Is there need of arterial stimulation? Is there need for cerebral stimulation? Is there need of an astringent or hemostatic? Is there need of an alterative action upon the diseased surface? Turpentine not only fills one, but all of these indications.

The secret of success in the treatment of long continued fevers, as in typhoid, consists in the administration of stimulants and alimenta at the proper time. To give stimulants and food with a bounding pulse and acute delirium, is as serious an error as to withhold such measures when the pulse becomes dicrotous, the skin cool and clammy, and the brain in a semi-comatose condition. Under the dominant idea of anticipating exhaustion large quantities of beef-tea and egg-nogg, together with various food combinations, are poured into the stomach, enfeebled as to its power of digestion, with no other effect than to still further embarras the elimination of waste and to increase fever by adding the irritation of indigestion or provoking a diarrhœa, which is often hard to control.

The nourishment in the febrile state should be given in small quantities frequently repeated, and the diet should never be varied. There is less danger to be expected from possible starvation than from overfeeding. I believe that very many fever patients are overfed. When the indication for alcoholic stimuli presents, the alcohol in shape of good old Bourbon whisky is the safest selection, and should be repeated at short intervals, never allowing the sedative effect to follow stimulation. Thus employed with proper aliment, alcohol is good. It is as frequently made to do harm as good, and never should be given in the form of wines, cordials, etc., while sweetened drinks give rise to an acid condition of the jejunum, preventing digestion. There are few nurses whom we may entrust with the care of the sick in the night time, especially a patient in the last stage of typhoid fever. Only loving eyes can see, only loving hearts can watch and perform these offices tenderly.

It is usually at midnight under the sedation of darkness, when the fire burns low and paid nurses sleep, that a fatal change takes place; and it is usually the case that the proposed stimulant is longest omitted at night. Pancreatized milk in small quantities is the only nourishment necessary, unless the patient should have a fancy for beef-tea, which is rarely the case. An occasional gill of fresh churned buttermilk is most gratefully received, and can only do good in digestion. Rectal feeding amounts to very little, other than the introduction of water into the blood. Peptonized and emulsified preparations may afford some nourishment in this way. It will hardly become necessary to sustain a patient in this manner, provided too much medicine has not been given by the mouth. The want of nitrogenous material may be supplied and other therapeutic advantages gained by the administration of mindererus. Delirium is sometimes relieved and nearly always lessened where either the acetate or nitrate of ammonia are used.

The mineral acids, nitric, muriatic, nitro-muriatic, sulphuric, given so largely diluted that they at the same time supply the necessary dilution of the blood have a most marked salutary effect. It would be better if they were substituted for more heroic treatment in typhoid. Hemorrhages in typhus and yellow fever are not so much due to giving way of blood vessels as to the giving away of the blood itself. Moreover the mineral acids are powerful oxidizers. Super alkalinity of the blood is an important indication for their administration. The ammoniacal odor of the breath in typhoid, the fetid odor of yellow, and the putrid condition of typhus call for their use.

In the sick chamber the medical man should be in full possession of his senses in more than the common acceptation of the term; all five of the special senses are called for. It is not enough to see, hear, feel and taste, but also to smell. Good olfactories, trained by experience, assist wonderfully in diagnosis and prognosis. The odors arising from typhoid, yellow and ship fever are nearly allied. The odor of rheumatism is certainly diagnostic, so the bean-like smell of dropsical effusion in ascites. The odor of scarlatina is that of a menagerie. The earthy smell of small-pox and the odor emanating from a syphilitic patient are distinct and peculiar and, if studied, serve to confirm if not indeed to disclose the disease.

It is to be regretted that the fever called remittent and which is of frequent occurrence in childhood should be considered as differing in any of its essential features from the typhoid or enteric fever of adults. The term remittent is indeed proper in so far as it describes the febrile accessions. It should be understood to be the same as formerly described as gastric fever, childs' hectic and worm fever. The gastro-enteric irritation often marked by the angry red tongue and frequent vomiting contra-indicates the use of quinine, and a persistent attempt to administer this drug is followed by increased irritation, severe headache if in fact the quinine is retained at all. It happens, however, that we are able to treat such cases without quinine and conduct our little patient to a safe and speedy termination by aid of less powerful remedies.

It is in this fever that we are able to do so much by the bath, the sponging, the neutral mixture, the aconite and mindererus.

The administration of castor oil in an emulsion and in small doses, which can be rendered not only unobjectionable but positively palatable by a little pharmaceutical skill, has a charming effect upon the gastro-enteric mucous membrane, and I have so often witnessed a reduction of temperature and refreshing sleep follow its use that I am in the habit of giving it as a night mixture in bad cases. In convalescence, the unirritating preparations of iron, the tartrates with inf. columbo and orange do most good.

To describe the fevers arising from malaria would be entirely superfluous in this place. Such manifestations are of the utmost frequency. The distinctions of ague as described in medical writings are insignificant in frequency when compared with the manifestations which may be properly called irregular. Quotidian, tertian and quartan agues are far less frequent with us than the stealthy insidious blood thief which obeys oftentimes no law of regularity or periodicity, but which is certainly malarial. To the casual observer it seems a little strange that a single member of a family should be the subject of malarial fever when all are equally exposed.

It is no less strange that so soon as the beautiful green sward of our blue grass lawns is upturned it should at once become the abode of unsightly weeds entirely foreign to its surface.

An injury, a broken arm, a sprained ankle, a bullet wound or a knife stab is frequently followed by symptoms unquestionably malarial. The truth is that malaria is present with us to a greater or less extent constantly and for the most part successfully combatted by a higher vitality. Moreover, a close inquiry in many families developes the fact that other members are suffering some slight indispositions due to the same cause.

The treatment of such manifestations needs no enunciation at my hands. Suffice it to say that all malarial diseases are dangerous in the same direction, viz.: the production of internal congestions, and as a consequence, deterioration of the blood as to red corpuscles. The rapidity of the involvement of the spleen is quite as remarkable as the cure is intractable; blood which has been stagnated in these congestions is not again fit for circulation. It is probably destroyed or becomes excrementitious substance requiring to be eliminated. How often abscesses of internal organs are the result of such accumulation and blood disintegration can not be known, but it is fair to presume that this blood debris is a potent cause of abscesses, bullæ, etc.

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The Grand Jury has begun an investigation of the Lunatic Asylum on Ward's Island. The cause of this investigation is the number of persons recently pronounced sane and liberated.

Insanity.

BY DR. JAS. G. KIERNAN, CHICAGO, ILL.

LECTURE II.—HALLUCINATIONS.

THE subject of hallucinations opens up a species of debatable ground between sanity and insanity. Here the normal "dream" is replaced by a similar phenomenon occurring in the waking state. The sleeping man accepts his dreams as true, because his associating power is interfered with by sleep. The insane man accepts his hallucinations as actual occurrences, because his associating power is destroyed or prevented by a diseased or malformed cortex. Active reproductions of the memory also closely approach in some respects hallucinations. The case of Baron von Swieten, narrated by Erasmus Darwin, who saw a putrid dog explode with a prodigious stench, and years afterward was unable to pass the place without nausea; Goethe's visions brought to him at will, Shelley's vision of the woman whose nipples were replaced by eyes, Spinoza's vision of the leprous negro, were all active reproductions of the memory which needed but little derangement of the associating power to transmute them into hallucinations.

It has often been claimed that "great wit to madness nearly is allied," and the study of hallucinations seems at first sight to confirm this oft quoted couplet, for the physician who cites hallucinations in a court of justice as evidence of insanity, is often confronted by the lawyers with cases of men, eminent in art, literature, science, theology and statecraft, who have had hallucinations. An analysis of the most quoted of these cases will serve as an apt introduction of the subject. Napoleon the First had his star which appeared to him on certain great occasions. Andral, after a dissection of a child, saw, on leaving the dissecting room, the child suspended in air. Luther, while imprisoned in the Wartburg, saw the devil and flung an inkstand at him. Samuel Johnson, of dictionary fame, heard his mother cry, Sam! Sam! when miles distant from her. Blaise Pascal, the apostle of the Jansenists, saw before him a yawning gulf. Tasso heard, saw and spoke to a protecting spirit. Sir Walter Scott, years after Byron's death, saw his face at the window.

The first question which naturally arises is, were these men, despite their great eminence, sane. If all were not sane, then the impure cases should be excluded before proceeding to discuss the hallucinations of the others. Napoleon's hallucinations were obviously due to his epilepsy, which on several occasions impaired his mental powers. Johnson, as has been shown by Spitzka,* was a case of primary monomania with imperative conceptions. Hallucinations were not the only evidences of insanity in his case. Torquato Tasso was also a monomaniac who had episodial attacks of maniacal fury. Sir Walter Scott, at the time of the hallucinations, was suffering from an impaired mind, produced by the cerebral affection of which he died. These cases are therefore impure and may be excluded.

But how explain the cases of Luther, Andral and Pascal? Andral's hallucination was not an hallucination in the sense in which we use the term. It was an ocular phenomenon only, and as such he regarded it. Blaise Pascal's hallucination was simply an active reproduction of memory which had taken a very strong hold on a nervous system weakened by a shock received at the fall of a bridge, from which time the hallucination dated, and still farther impaired by austerities and overwork. Luther's hallucination related to a matter of faith; his powers of correction were weakened by the belief of his time and by overwork.† Had Luther lived in the nineteenth century, his vision of the devil would have led him to consult a physician in lieu of throwing inkstands.

To all these cases, Griesinger's explanation will apply: "The man mentally healthy either regards such hallucinations as purely subjective (Andral, Pascal) or he believes in their reality because he does not possess the premises necessary to judge of these phenomena, since superstition (Luther), sluggishness of thought, or love of the marvelous, restrict and obstruct their true interpretation."‡

On first studying hallucinations the impression made upon the mind is that sense organs play an important part in their productions. The dilettante alienist looks for hallucinations in the sense organs, and but too often pretends to cure or believes he has cured a purely cerebral affection by local treatment alone. This pernicious error is far too prevalent. The definition already given indicates that it is essential that a mental element be present, otherwise the hallucination ceases to be such in the sense in which that term is used in psychiatry. That there should be disease of the sense organs is not necessary. It is not necessary that there should be sense organs at all. Thus men destitute of eyes have had hallucinations of sight, One of my patients had an eye enucleated. During an acute attack of insanity he plucked out the other in supposed obedience to the divine command, "If thine eye offend thee pluck it out and cast it from thee, etc." He subsequently became chronically insane, and had very vivid hallucinations of sight. The French alienists Ball and Règis have attempted to rehabilitate this exploded doctrine, but do not present evidence that has not already been answered. That local affections may modify hallucinations is true, but local affections can produce hallucinations only when associated with cortical disease or defect. Removal of local sense organ diseases will rarely remove hallucinations; so rarely that it is safest to assume it does not do it at all while fully admitting the propriety of removing all sources of local irritation for general medical reasons. Too frequently has it happened that an hallucinated lunatic has been treated for an hallucination by local measures which temporarily produced a psychical effect on the patient who, in consequence of an apparent improvement, was relieved from surveillance and committed acts of violence, proceeding from his supposedly cured hallucination.

What then is the physiological explanation of an hallucination? Spitzka* gives the following explanation: "Take, for instance, an impression of the retina. It is obvious that no registration takes place in the eye. The fibres of the optic nerve go to the corpora quadrigemina, though a small portion go to the thalamus, and there, as Adamuek's experiments have proven, the complicated coördination of the optic muscles takes place with reference to the object which is seen. Not only this, but that higher automatism by which the whole locomotor apparatus is made subservient to vision in following a moving object without exerting the will, for instance, must depend upon the automatic impulses which traverse the lemniscus from these ganglia. This is, therefore, also a most unfavorable locality for the purposes of conscious registration of impression. There is a powerful fasciculus of the corona radiata, known as the *radiations optiques*, which is directly and indirectly connected by its peripheral end with the retina and by its central end with the occipital lobe. When it is considered that these complex registrations, implying a higher consciousness, can only have their seat in the higher centres, namely, in the brain cortex, it must be concluded that, through this fasciculus, registrations are projected on the cortical convoluted screen; a screen since it acts like one in receiving impression which are, however, never blotted out except by disease or death. The true explanation of an hallucination, then, is that in an intact cortical territory through anomalies in its vascular supply, an old impression is re-awakened with life-like vigor, and an electro-negative oscillation takes place similar to the one occurring when the actual impression was first registered. Reproduction of images can have its seat only where a complete registration of images is possible and for the thousands of impressions which a human being is called on to register during his life time there is but one ganglionic region which presents sufficient registration cells and that is the cerebral cortex." This explanation has received a seemingly full corroboration from Munk's* physiological experiments. Hallucinations are of great importance clinically for their own sake and because they form the basis of secondary delusions. The first question which comes up here as elsewhere in science is that of classification. Hallucinations may be of any one of the senses and this forms one means of classification, auditory, visual, touch, taste, etc. While this division is of some value for what may be called prognostic reasons, it is, even from that standpoint, not the best. The origin or genesis of hallucinations furnishes a much more valuable principle of classification. Accepting this principle as valid Laségue† divides hallucinations into: first, initial or casual; second, consecutive or terminal. The first are, as a rule, found in the acute psychoses or types of insanity and the various deliria from toxic agencies. They originate with the psychosis, are always attended by much emotional excitement, are temporary in character and no attempt is made by the patient to explain their origin or existence. He accepts them as very disagreeable facts.

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* Journal of Nervous and Mental Diseases, January, 1881.

† Berkhard Archiv. für Psychiatrie, Band. XI, Heft. 3.

‡ Mental Pathology and Therapeutics, Section II, Par. 55.

*Journal of Nervous and Mental Diseases, 1877, p. 325.

The consecutive or terminal hallucinations, on the other hand, are found in the chronic psychoses only, are of bad omen as to prognosis, are not necessarily accompanied by emotional excitement and the patient gives a detailed and logical explanation of them. Of their genesis Laségue* has given the following lucid and satisfactory analysis. "The patient reasons, among the numerous ideas which strike him there are some whose origin he recognizes and some he does not. There are then for him two individualities, one of which is himself and the other is a he which is not, and is himself; a species of parasitic being which has taken control over him. It is 'he' who commands, maintains and ordains, and the patient is unable to detach himself from this parasite. How has this new 'ego' obtained control over his thoughts and imposed on him his will. By the ordinary process of thought ? No, but by something or some one which speaks to him. When the patient has obtained this formula he has the explanation of his condition. The auditory hallucinations form a means of communication between his thought and that of the parasite which interferes in his existence. It is an elaborate transition between the idea of self and the idea of another." The most frequent initial hallucination are those of sight, taste, touch and smell. Among the consecutive hallucinations the auditory predominate. While initial hallucinations do not denote a bad prognosis they do not denote necessarily a good one; this being dependent on the psychosis in which they occur. The calm, deliberate man, who so exactly details the denunciatory cries of his enemies and explains the *modus operandi* they have adopted, whose emotions are so much under control and who meets argument by counter-argument, is an incurable lunatic. While the deeply excited man, yelling and shouting at the top of his voice because he sees guns pointed at him, may have an acute psychosis from which he rapidly recovers. Hallucinations are found in about one-third of the insane. Griesinger says that hallucinations of sight are most frequent, which is probably correct, but not as regards the insane in asylums. Blandford* claims that roughly speaking hallucinations of sight are most met with in the acute, hallucinations of hearing in the chronic insane. The great value of hallucinations from a clinical point of view lies in the fact that they render the diagnosis of suicidal, homicidal or dangerous lunatics, a very easy one. An hallucinated lunatic is always dangerous. Hallucinations of sight lead to murder or suicide, hallucinations of hearing to suicide, or murder, or both; hallucinations of smell to arson and any or all hallucinations to violence. This class of lunatics should always be kept under surveillance.

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*Biologisches Centralblatt, No. 1, April 15, 1881.

†Annales Médico-Psychologiques, January and March, 1881.

*Insanity and its Treatment, p. 171.

There may be hallucinations of two senses at the same time. All of the senses may be affected; in one case observed by me, the patient had an hallucination of sensibility on the left side which later on led to the belief that a parasitic being had been joined on that side who uttered blasphemous language whereupon the patient hammered the left side of his face to punish this parasite. Hallucinations of opposite kinds may occur at the same time. Morel reports a case in which a voice at one ear commanded suicide and one at the other denounced it. The last hallucination was probably secondary to the first. Patients are not rarely found in whom no hallucinations can be at first found yet who stand still suddenly as iflistening or perhaps commit sudden acts of violence. Such persons will be found to have hallucinations. To elicite these, conversations should be adroitly directed to some one of the sense organs and the proper key being touched the hallucination can be elicited.

DELUSIONS.

In dealing with these we approach a subject closely allied to hallucinations. Not unfrequently is an hallucination the starting point of a delusion and vice versa. Delusions like hallucinations have formed the basis of many medico-legal criteria of insanity but erroneously, still it cannot be denied that an analysis of the insane delusion gives a better idea of the workings of the insane mind than any other means which could be adopted. Considered in its widest sense a delusion is a symptom which impresses itself most strongly on the student. It is also a symptom which is most demonstrable from the insane patient. Here, as with hallucinations, the first question is that of classification. In the majority of works on the subject delusions are variously classified according to whether the mental tone pervading them be that of exaltation or depression and hence the fundamentally distinct expansive and depressing delusions. These have been further subdivided as ambitious, religious and erotic delusions under the first class and hypochondriacal delusions and delusions of persecutions under the second class. As Spitzka* has pointed out, these terms are all admissible as terms, but the principle of classification indicated in their adoption as fundamental distinctions is faulty. A progressive paretic may believe he is a king, so may a monomaniac, so may an imbecile, but in all three cases, although the conclusion of the delusion be the same, its genesis and structure are widely different. The contents of a delusion are of minor importance compared with its genesis and construction.

Delusions may be divided into the genuine and spurious. The former have been originated by the patient himself; the latter have been adopted from other sources. The first class have an intrinsic diagnostic value; the latter do not possess such, and are of most interest from the standpoint of differential diagnosis.

The genuine delusions are best classified, according to Spitzka,* by their synthesis. Certain delusions have a complex logical organization; others are destitute of this. Spitzka therefore divides them into systematized and unsystematized. This, like Lasègue's division of hallucinations, is undeniably a valuable starting point. To be sure Spitzka was not the first to recognize the existence of such delusions. Still he was the first to formulate this as a basis of classification.

As will be readily seen, all the varieties of insane delusions may fall under either of these heads, and there may therefore be "systematised" delusions of persecution as well as "unsystematized" delusions of persecution. The question of systematisation is of much more diagnostic importance than the question of exaltation or depression. A systematized delusion implies a chronic type of insanity; an unsystematized, either an acute or chronic. The systematized expansive delusions may be regarded as falling under three great types. The highest general mental development among the constitutional lunatics is found among those who form systematized delusions of social ambition. These patients are the royal personages, the social reformers, the great statesmen, the mechanical geniuses, the great generals, great poets, etc., of asylums. The delusion originates in a dream, an hallucination, a chance assertion, and grows, by a perverted logic, to its full development. The person acts in full consonance with his assumed character, and in many instances his mental energy is shown by the formation of projects which, whether ultimately practicable or not, are carried out, with some regard to detail and the patient's social and pecuniary position. These delusions at times are only limited to the patient's self-esteem in the abstract. He writes doggerel verse and claims to be a great poet, or invents some unimportant machine and claims public gratitude. As has been pointed out by Spitzka,* these systematized delusions of social ambition may originate in a delusion of persecution. Because the patient is persecuted, he is therefore a great man. Systematized delusions of an expansive erotic type are not expressive of sexual desire. The word erotic is here used in its purer and higher sense. The patient whose adolescence is marked by romantic tendencies, constructs an ideal person of the opposite sex in his day dreams, and then discovers this ideal in some personage of more exalted station than his own. He then manufactures a long romance revolving around this adored object, in which are mingled delusions of self exaltation or of persecution, as circumstances favor or oppose. These patients form a large proportion of the cases of insanity who have as an assigned moral cause "disappointment in love." This assigned cause is, as most assigned causes often are, a symptom of insanity. The systematized delusion of an expansive religious character, has its origin in a devotional tendency of the patient, and is brought to its full development by incidental occurrences, either of actual or hallucinatory origin. These patients have founded religious sects of more or less prominence, and among these are to be found sexual manifestations of all kinds. As Spurgeon says, sensuality is in close alliance with religiosity, and this is why sexual manifestations have played such a prominent part in the history of various religious sects. To say, as has been done in a recent trial, that religious delusions are inconsistent with sexual manifestations, is to set oneself against clinical observations. When a lunatic displays religious delusions, sexual manifestations, either normal or aberrant, may be expected.

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*Journal of Nervous and Mental Disease, 1881, p. 27.

*Journal of Nervous and Mental Disease, 1881, p. 28.

Marcè† was the first to point out that systematized depressive delusions should be demarcated from unsystematized. Among the systematized depressive delusions are to be found all the antitheses of the expansive, but as the latter may form the starting point for the former, and *vice versa*, it must be obvious that the distinction between the two is purely arbitrary.

Upon what do these systematised delusions, displaying as they do such a close imitation of normal reasoning power, and really giving evidence of reasoning on false premises, depend? The best explanation, having both an anatomical and clinical basis, is that of Meyner as modified by Spitzka.* When we see an individual without any manifest disturbance of his emotional and affective states in full possession of the memories accumulated in the receptive sphere and able to carry out most or all of the duties incident to his social position, who cherishes such a gross error as a delusion, firmly believing in the reality of that which, from his education and surroundings, we should expect him to regard as absurd, we are naturally puzzled to account for the phenomenon, and numerous have been the theories advanced to explain the systematized delusion. The older view held by Hagen,† that a delusion is based on an exaggerated excitation of certain cell groups, must be abandoned, for such an excitation could not be so distributed as to involve the cell groups which in the light of modern theories of cerebration are involved in any one special set of intellectual functions without involving so much of the cortex as would lead to generally exaggerated mental action. Excitation beyond normal bounds when it does take place in these patients is purely episodial.

Instead of an exaggerated cell action just the opposite state of things is at the bottom of the systematised delusion. Meyner's‡ explanation is in accord with anatomy, physiology and pathology. He,§ many years ago, called attention to the presumptive physiological rôle of certain arched fibres which are known to unite adjoining, as well as distant, cortical areas with each other. He claims that if it be justifiable to assert that a nerve bundle which unites a peripheral surface like the retina with the cortex is a tract of functional projection, another tract which unites two cortical areas must be regarded as an associating mechanism. It has since then been ascertained by Spitzka that if an ascending series of animal brains culminating with the human be examined, it is found that the white centre of Vieussens, which in the reptilia and marsupials is almost exclusively devoted to "projection," grows with far greater rapidity than the cortical area and cortical thickness and richness in cells. In fact in Spitzka's opinion the chief factor on which the higher powers of the human brain depend is not the cortical development, as such, but the preponderance of the white substance due to the massive associating tracts. Although the projection tracts are also larger in man than in any other animal, yet so great is the preponderance of the associating mechanism that elimination of the former would not reduce the white substance of the hemispheres by one-half its bulk. Both projecting and associating fibre masses increase in nearly geometrical progression from the lower animals to man but the rate of progression of associating fibre mass exceeds that of projecting tracts.

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*Medical Gazette, May 15 and 29, 1880.

† Traitè Pratique des Maladies Mentales.

* Journal of Nervous and Mental Diseases, January 1881, p. 33.

† Studien auf dem Gebiete der Ærztlichen Seelenkunde.

‡Psychiatrisches Centralblatt, 1, 1878.

§Stricker's Manual of Histology.

There are certain convolutions which are almost, if not exclusively, connected with associating tracts and enjoy at most but little direct conection with the bodily periphery. Such an area obtains the simpler registrations by means of its associating fasciculi from such gyri as have received them through the projection system from the bodily periphery and utilizes such registrations in the formation of its organic unity.

Such cortical areas and their subsidiary associating tracts when bound into the still higher unity of the entire hemispheres constitute the substratum of the metaphysician's *ego*.

A disturbance of the intricate anatomical relations which are involved in the material basis of the *ego*, must be accompanied by a disturbance of the *ego*, or may even render an *ego* an impossibility.

It is on accurate connection of projection areas with projection areas, and of these with "abstraction" areas that the faculty of logical correlation must depend. The correction of the countless errors made during a lifetime is possible only by an influence analogous to inhibition, exercised by the associating fasciculi, and the proper aim of every really educational system is to develop this control of the various cortical screens on each other; a correction which, with approaching maturity, is delegated to the "abstraction" field. It is in full accordance with this that aberrations in gyral development, in the proportion of the cerebral lobes to each other, and in the symmetry of the hemispheres, are found in systematized delusional lunatics. Systematized delusions are therefore not the result of exaggerated cell action, but are due to defective association; that is, to a weakness of the logical inhibitory power. The elements entering into the composition of systematized delusions are the same which constitute normal conceptions like day dreams or errors of every-day life; but as Meynert remarks, the systematized delusion differs from the error in the utter incapacity of the logical apparatus to correct it. The essential distinction between the systematized delusion and the unsystematized, is the correlation with the surroundings or the physical condition of the individual. Between these surroundings or physical states a pseudo-logical chain is detectable in the systematized delusion, which does not exist in the case of the unsystematized.

The systematized delusional lunatic seizes on accidentally coincidental circumstances as supports for his delusion. Thus, a patient is suddenly seized by an imperative conception that if the life of the chief magistrate be destroyed, civil war previously imminent will be prevented. He has previously written a book to save souls. The sale of this book hitherto minimal, will suddenly increase because of the prominence of the author, who has saved the country. Since the book was written to save souls, it will thus be enabled to attain its object by a means at first seemingly distant from this, and since this means will also lead to good results this conception must have originated with one most interested in saving souls, that is, with God. The suggestion of divine inspiration naturally occurs. The idea that a delusion of divine inspiration must originate in a hallucination, could only occur to those who have failed to recognize the existence of systematized delusions. A systematized delusional lunatic shows a tendency to misinterpret the ordinary affairs of life, and from such misinterpretations originate delusive conceptions which later on form the basis of delusions. These conceptions may, however, never become delusions, since other misinterpreted circumstances abort their full development. Ravaillac, who assassinated Henry IV, was a systematized delusional lunatic excluded from his cloister by reason of his delusions. At one time the delusion which led him to kill the king was so much interfered with by a healthy conception that he destroyed his weapon. This healthy conception was again misinterpreted and led to the murder. The general mental condition of these delusional lunatics is, as a rule, fair. The absurdity of the delusion is not as much a test of the mental rank of the patient as its construction. An absurd delusion may be founded on a very extended chain of reasoning; a much less absurd delusion on much more crude reasoning. Elab orate projects, some of them actually feasible, are evolved along with very absurd delusions. Paterson, the founder of the Bank of England, was a systematised delusional lunatic, yet his Bank of England scheme was feasible, while his Darien scheme was a decidedly insane project. In the United States one of this class of lunatics did much to push the Pacific Railroad to success.

The factors engaged in the production of a systematized delusion are two-fold, the predisposition based on anomaly in cerebral architecture, and the exciting causes. These are : The general mental tone of the patient, a sanguine disposition has delusions from day dreams; the wish is father of the thought. A suspicious person evolves delusions of persecution: The physical state which, if fair, leads to expansive delusions, involving social and sexual matters, if somatic disease exists may result in hypochondriacal delusions: The circumstances of the patient, his education, social position, and the age in which he lives, seriously modify his delusions.

Unsystematized delusions are divisible into two great groups: those due to actual destruction of logical association, and those originating in the mind being overwhelmed by powerful emotional or other influences. They may be found in acute types of insanity, and in them there is no attempt at reasoning. A patient suffering from an unsystematized delusion of persecution cannot tell why he is persecuted. A patient having the unsystematized delusion of grandeur cannot tell why he is a king and Pompey Jones at the same time. He simply accepts the fact and permits you to call him by his right name without a remonstrance. Spurious delusions can be better discussed after fair examination of the general subject of insanity.

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The Power of Alcohol Over the Nature of Man as Displayed by the Modifications of Mind, Morals, and the Physical Constitution, Incident to its Use.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O

PART I—GREATNESS OF THE SUBJECT—GENERAL VIEW OF THE ACUTE EFFECTS OF ALCOHOL—NERVOUS SHOCK—MANIA A POTU—CHEMICAL EFFECTS OF ALCOHOL—TISSUE WASTE ARRESTED—CARBONIC ACID AND UREA—ANÆSTHESIA.

THE physical and mental effects of the alcoholic element upon the human characteristics, are so intimately interwoven, that a systematic isolation of them would lead to a tedious repetition of facts and illustrations respecting important points common to both. I therefore will treat of these effects, as they appear to grow out of the interchange of physical and mental operations, as they are clearly superinduced by alcoholic influences. Thus I hope to exhibit plainly, and as it were upon the spot, the actions and reactions of mind and body, when set in motion by the force of alcohol. I will also confine myself to those organic consequences of alcoholic indulgence which evidently relate to the peculiar physical conditions induced by it.

The discussion of the subject may begin at any one of a multitude of points; for, as I shall have occasion to show, it is a subject that involves, if it does not include the entire man, body, intellect and sensibilities, together with all his possible relations in life—pathological, physiological, civil, criminal, industrial and domestic.

In order to achieve some appearance of regular arrangement, however, I will first of all notice in a general way the acute effects of alcohol upon the body and mind. It will be most satisfactory in this relation to observe the immediate alcoholic impressions as they appear upon taking a full dose, while in a perfectly sober and normal state.

Peculiarities and idiosyncracies of a constitutional character must be allowed to explain some few exceptions; but as a rule, a full dose of whiskey or brandy—where the alcoholic element of drink is in large proportion—will give rise to symptoms such as follow: The alcohol will seem to act as a decided shock upon the nervous centers. The vaso-motor system will probably be impressed in a very sensible manner. The face will often be very pale. The muscles of the countenance will be contracted in a semi-spasm of a tonic character. The eye will appear bright and glittering, as the muscular contraction affects the eye-ball, producing a tense condition of the anterior surface of that organ. The movements of the eye will be jerky and sudden; not deliberate and quiet. This also is the consequence of the muscular spasm. The mouth will be firmly shut; but likely will be convulsively agitated when a voluntary movement of it is attempted; just as sometimes is observed in a person shivering from severe cold. The articulation of speech will appear imperfect, and the individual upon endeavoring to talk, is surprised to find that he is incapable of speaking in his usual circumspect and natural method. Respiration will be performed with something of labor in consequence of the rigid state of the respiratory muscles. This will become more apparent upon an effort to speak at length, when the words will be delivered in a panting and difficult way, as though one was tired with violent exertion. Indeed, there appears to be an involuntary and unpleasant strain and fixation of the entire muscular system, which, possibly without mental confusion, or dizziness, renders general movements confined and unsteady. There is in reality a state of rigidity affecting the universal muscular system. The contraction of the countenance and individual features is plain to be seen. The temporal arteries swell out under the retracted skin, which has followed, by virtue of its elasticity, the general contraction and shrinkage of the muscles. While these symptoms and appearances are observed, there is often perceptible at the same time, a shivering or trembling of the entire person, not unlike the initial approaches of a chill. This phenomenon may be called with truth a nervous chill.

It will seem, upon reflection, that the glittering of the eyes, and the prominent standing out of the muscles of expression are, as in cases of genuine insanity, really the motor indices of a corresponding mental disturbance near at hand. They point to concomitant derangements of the ideational centers; derangements awaiting the passage of a brief time only, to sensibly declare themselves.

There is nothing in this situation of the nervous system that is gratifying to mind or body. It is not this which invites the inebriate to the allurements of drink. Its duration is usually brief, lasting from a few moments to an hour; but sometimes extending considerably beyond that.

After the alcoholic poison invades the ideational centers, which it very soon begins to do, additional groups of symptoms became developed. An important one of these groups cannot be described more accurately than by giving a delineation of the symptoms of initial mania, as drawn by Dr. Maudsley (*Path. of Mind*, p. 397): "After a precursory stage of depression, of longer or shorter duration, sometimes so short as to escape notice," like the stage of alcoholic shock which is above described, "the patient is often happy beyond measure in the feeling of unfettered mental power, evincing a supreme self-confidence and elation. Natural reserve and prudence are replaced by confident address, by vain-glorious pretensions, by bold and reckless projects. Nothing is difficult to him. He will sing who knows nothing of music; will confidently speak at public meetings, though a public speech would he the last thing he would try when in his natural state; and withal he is sly, crafty and untruthful. He sometimes evinces acute insight; recalls forgotten ideas; makes witty and satirical remarks; puns cleverly upon words; hits upon acute comparisons, and displays eloquence of speech beyond his natural capacity."

It would be difficult to find a more life-like description of acute intoxication than is contained in this language. "I then felt so happy," said a recovered maniac, "my memory was clear and facile, and nothing fettered my mind." And this is a good description of the mental state to which the inebriate aspires when he partakes of alcoholic liquors. The mania of acute intoxication, that is, the true *mania a potu*, soon subsides by reason of the rapid elimination of the alcoholic element through the several avenues of waste. But this subsidence oftentimes is not permitted to occur. The unhampered mental flow, the freedom from the checks and hints of the common and tiresome functions of minor and harassing sensibilities and perceptions, are too pleasing to be readily surrendered. Hence frequent repetition of the act of drinking keeps up the coveted excitement.

In the analysis of the progressive stages of intoxication, let us carefully examine what next takes place. I have said that the objective point of the alcoholic inebriate is intoxication. This object has been attained; but the rapid escape of alcohol from the system requires a frequent resort to that agent, in order to preserve the excitement induced by it from diminution or abatement.

Complications begin now to appear. The satisfaction derived from intoxication in its incipiency is so pleasing and seductive that the natural desire is, when that condition is once established, to maintain it, or if possible exalt its intensity. Therefore more alcohol and in extraordinary quantities is taken. A very interesting and important modification in the state of intoxication now arises from a certain property of alcohol operating upon the vital forces; that property, namely, by which it chemically interferes with the oxidation and waste of the tissues of the organism. This complication induces a change in the condition of the blood that is characterized by imperfect arterialization. Such blood always acts perniciously upon the brain, producing intense cerebral distress and ultimate stupefaction. "We know," says Dr. Chenery (*Journal of Inebriety*, vol. iv, p. 91.) "that alcohol acts injuriously on protoplasm, changing and destroying its chemical integrity, and thwarting the evolution of cells." And again, "alcohol will coagulate the formative material and harden the containing envelope, and retard the development of cells." Dr. B. W. Richardson declares that, "alcohol acts on the corpuscles, causing them to undergo modifications of shape and size, and reducing their power of absorbing oxygen from the air." Dr. Branthwaite, in a paper read in the international congress at Brussels in the year 1880, asserts that the generally received opinion is, that alcohol "diminishes the exhalation of carbonic acid by the lungs, and diminishes also the quantity of urea; showing an insufficiency of tissue change, and consequently a failure to completely oxidize the nitrogenous substances of the organism."

The effects growing out of a state of mind and body inseparable from a condition of the blood and brain, such as now is oppressing the inebriate, are, as a rule, those deplorable acts of violence and cruelty which are common to the worst moods of the drunkard. The impression caused by the circulation of corbonized blood through the brain is well known. The cerebral pain is agonizing, calling forth groans of anguish from the most stoical; and the inebriate suffering from this cause seldom fails to invite back again the pleasing experiences of his primary intoxication, by drinking deeper still. The consequence now is, that while maniacal excitement is again produced, it is no longer pleasant and agreeable. But, being weighed with the accumulated distress derived from a brain oppressed by the presence of carbonic acid, and from a system at large surcharged with effete matter, the intoxication takes the form of distracting frenzy, of unreasoning and desperate methods, and discharges its force, as the *mania transitoria* of epilepsy is wont to do, in acts of violence frequently, and of blood and murder at times.

Ordinarily there is not complete extinction of the reasoning faculties; but the feeling of discomfort is so urgent that those faculties are not questioned, and the restlessness and violence of mania are precipitated in action, under the pressure of an unmanageable disruption of the nerve energies.

It has been said that the true disposition of a man is always displayed when he is intoxicated. "One, it makes a furious maniac, another maudlin and melancholy, a third stupid from the beginning." When the effects of alcohol are new and of recent origin, and its activity is displayed upon a nervous system which it finds in a healthy and normal state, this idea—*in vino veritas*—is perhaps correct in most instances. Under such circumstances, alcohol seems to open out, expand, and bring into activity the dominant powers and characteristics of the mind and disposition. But after the chemical effects of alcohol upon the organism begin to declare themselves, after the carbonized blood and retained urea sensibly poison the brain, at the end of a prolonged and profound debauch, then all the natural faculties, and sentiments, and idiosyncrasies marking individuality, are lost and overborne by the resistless and universal oppression of a new group of poisons, differing totally in their effects from those of alcohol. These poisons, the final results of the chemical reactions of alcohol upon the tissues, are the same in all cases. They usurp the place of the normal bias, both of mind and of the affections, in all those under their influence. Their symptoms, as evinced by the moral and intellectual processes, overwhelm all others. These symptoms present the same unvarying characteristics; and they are always degrading and deplorable.

When in this situation, the inebriate, especially in the presence of those over whom he may have power, is surly, irritable, morose; is in a mood which impels him to strike, or otherwise abuse any one of his household upon the slightest suspicion or pretext, much as though he were the victim of epileptic insanity. It matters not how mild, how affectionate, or how sympathetic a man may be by nature and when in his sober senses, it is a fact that the drunkard is most likely to be quarrelsome and dangerous when he has come into the morbid, or rather toxic condition now under review.

There is a reason for this conduct quite different from the inborn wickedness to which it is usually ascribed. A lunatic is not apt to be aggressive unless he is, or imagines that he is, opposed or checked. But under such feeling of restraint he will become resentful and raging. So the public at large, as a rule, gives the inebriate, like the lunatic, his way unopposed, lest some scene of violence might arise. But in his home he is like to encounter remonstrance or reproof. If that should be delayed until he is sober, he will probably take umbrage because of it at his next debauch, and then retaliate with fury and viciousness. Besides, it is true that an intoxicated man has sense enough usually to conceive the disgrace and shame and want he is inflicting upon his home and family. It is an error to imagine that the insane man or the drunken one is wholly oblivious to the nature of his surroundings. The tears, the rags, and the instinctive fears of the drunkard's family are reproaches, keen and bitter, and, in his periods of frenzy he resents them.

Insanity is the representation of a state of mind which is the result of a morbid or toxic impression upon the brain. Mental acts thus superinduced, not being the offspring of evidence and reason, cannot be directly controlled, or their consequences modified by evidence or reason. They can be brought into the normal relationships of life in general only by the removal of the morbid process, or the elimination of the toxic agent. The mania of alcoholic intoxication is, also, the outcome of the toxic impression of alcohol upon the brain, and it cannot be controlled or modified to any reliable extent, except by the removal of the alcoholic poison from the circulation. It is not wholly true, therefore, that, because a person in a state of inebriation is comparatively civil to strangers who let him alone, and who arouse no remorseful ideas within his mind, he is exceptionally guilty of a mean and selfish tyranny when he is vicious in the midst of his wrecked and ruined family at home.

In considering the phenomena and factors of actual intoxication, I come to speak briefly of an element of very great interest and importance. Anæsthesia, or loss of tactile sensibility—including the ideas of modifications in its kinds, as well as gradations in its intensity—is a common, and perhaps a universal accompaniment of established inebriation. In the present connection, the influence that anæsthesia seems to impose upon the disposition of the drunkard in regard to his personal deportment, will receive attention exclusively; reserving a more extended consideration of the subject as it relates to modifications of the perceptive faculties, and to the question of responsibility for a place in the subsequent discussion of our general topic.

The presence of anæsthesia seems to have a great deal to do with the cruelty and heartlessness frequently displayed in the conduct of the drunkard. In the victim of intemperance alcohol itself, together with the ethereal changes made in it by the acids of the system, have the effect to produce pretty well marked general anæsthesia. Now, it is a matter of minor consequence, respecting the conduct of a drunken man, whether he can reason fairly well in an abstract way as to the impressions of pain upon others, the fact is, that since he is not susceptible to ordinary sensibility himself, in consequence of anæsthesia, he has, to some extent, gone out of himself; and his actions will be in relation to his present state, and not in relation to the normal condition of his tactile sensibilities. Such a man will, in a great many particulars, differ materially from a healthy man. He will act towards others, at least to a considerable degree, as though they were like himself, insensible to pain. Much of his conduct is displayed in consonance with his own insensibility rather than with the average sensibility of men in general. The various hallucinations of certain of the insane; as, that they have swollen to an enormous size, that they float in the air, that they are divided into parts—are due to anæsthesia; and much of the conduct of intoxication may receive an explanation of a kindred nature, without supposing any other hallucination than might be derived from general insensibility to pain, as well as to organic impressions, induced by the anæsthetic properties of alcohol.

It has already been observed that at first the drunkard repeats his indulgence in drink in order to intensify and prolong his agreeable feelings of elation. Subsequently, however, when the poisons resulting from the operation of alcohol upon molecular changes, and especially carbonic acid and urea, begin to accumulate and the brain becomes greatly oppressed by pain, the drinking habit is redoubled in a species of desperation in the hope that the primal feeling of simple intoxication may become again established. And the truth is that for a short time such a repetition of the drinking process does really relieve, to a considerable extent, the intolerable distress affecting the head, and at the same time steadies the trembling nerves and muscles. But this effect is not really a return to the happy excitement of acute, or recent intoxication. The system is now embarrassed with the consequences of secondary poisons, and the pure elation arising from the simple uncomplicated action of alcohol is impossible. The partial relief experienced under such circumstances from alcohol, must therefore be attributed solely to the anæsthetic properties belonging to it. These properties relieve the intense headache arising from the presence of carbonic acid and urea, just as chloroform when ordinarily administered would do. But at last, when the anæsthesia has passed away, the cephalic distress is worse than ever; because there must remain a still growing and accumulating quantity of carbonic acid and urea in the system. And so the inebriate proceeds in his vain endeavors to escape from himself, by drinking deeper and deeper, until the stomach so dreadfully abused, refuses to respond in function, or retain anything whatever.

Again changes take place. The various emunctories slowly carry off the alcoholic element and the drunkard is left without morbid excitement and artificial strength; at the same time the chemical poison remains, for the system disposes of that factor of intoxication much more slowly than it does of the alcoholic.

With the departure of the alcohol, the state of anæsthesia is also removed. The entire system is oppressed with effete material, which produces upon the sensitive nervous organization an impression of misery that is beyond description. The irritability of the prostrate nerves is now excessive. The slightest sound thrills the whole frame; every sensitive fiber is in a quiver of uncontrollable excitement and morbid apprehension. Anæsthesia now being removed, the disposition to inflict pain and revel in resentful cruelty no longer exists. On the contrary, the acute hyperæsthesia now reigning, is referred to a similar condition of sensibility in others; and an exaggerated regard for the rights and feelings of the outer world is developed. Any tale of sympathy, or even a train of sympathetic ideas will cause tears of emotion to stream from the eyes. The defects of moral feeling associated with anæsthesia, and which prevented any interpretation of the sensibilities of others, no longer exist; and the acute and morbid exaltation of all the feelings and sensibilities mental and corporeal, begets a correspondingly nervous and excitable interest for the ills and mishaps of all the world, outside of self. After a few days of rest and remorse the inebriate regains his wonted health and pursues again his usual avocations.

There are properly three classes or groups of persons who are true alcoholic inebriates. The common daily drunkard belongs to one of them; the daily, or steady drinker—not drunkard—belongs to another; while the periodic inebriate, the spasmodic drunkard, belongs to the third group.

The daily drunkard, or so-called confirmed inebriate, is often considered to be one who indulges his passion for drink simply from motives of baseness, idleness, and reckless diabolism. He is esteemed to be a person devoid of all principles of honor, all desire or disposition to do right, or court respectibility; but on the contrary, he is believed to be wholly in love and accord with evil from choice.

The daily drinker is viewed with a certain modicum of indulgence. He is blamed mainly in view of the example he is supposed to set to others, and his drinking is probably considered in a quiet way rather beneficial than otherwise, brightening and sustaining him amid the cares of business. At the same time he is considered a shining light and a demonstration positive, to show that every man can restrain his alcoholic appetite within reasonable limits if he will simply exert a disposition to do so. It will appear in the sequel that this steady drinker is the unwitting father, not only of a dreadful fate, oftentimes, to himself, but that from him especially, through organic nerve changes which eventually become hereditary, springs, not the inebriate and the lunatic alone, but the criminal also.

Conceiving the spasmodic or periodic inebriate to be the true type of the drunkard in his essential nature, I will occupy some space in describing and analyzing his character, and the nature of his motives. And in the light of the facts I desire to establish in this work, it will be made to appear, I think, that the unhappy man, even though he is confirmed in the habit of daily intemperance, is often indeed, far more feeble of will and infirm of purpose, through causes inherent in his constitution, than he is vicious or depraved or unprincipled; while the moderate drinker, so readily tolerated, and even praised, will appear to be a victim of folly, and of terribly mistaken ideas, ending in the greatest possible disasters to the peace and happiness of untold numbers, born to the tainted estate of inherited woe. Indeed, it will become an admitted principle in my judgement, that all classes infected with a morbid craving for intoxication from alcohol, are dominated in some degree, greater or less, by the peculiarities and disabilities which will be described as especially characteristic of the spasmodic, or so-called periodic inebriate.

A Case of Bright's Disease and Urinary Calculi with Anomalous Course of the Right Ureter and of the Entrance of Urethra.

BY T. CURTIS SMITH, M. D., AURORA, IND.

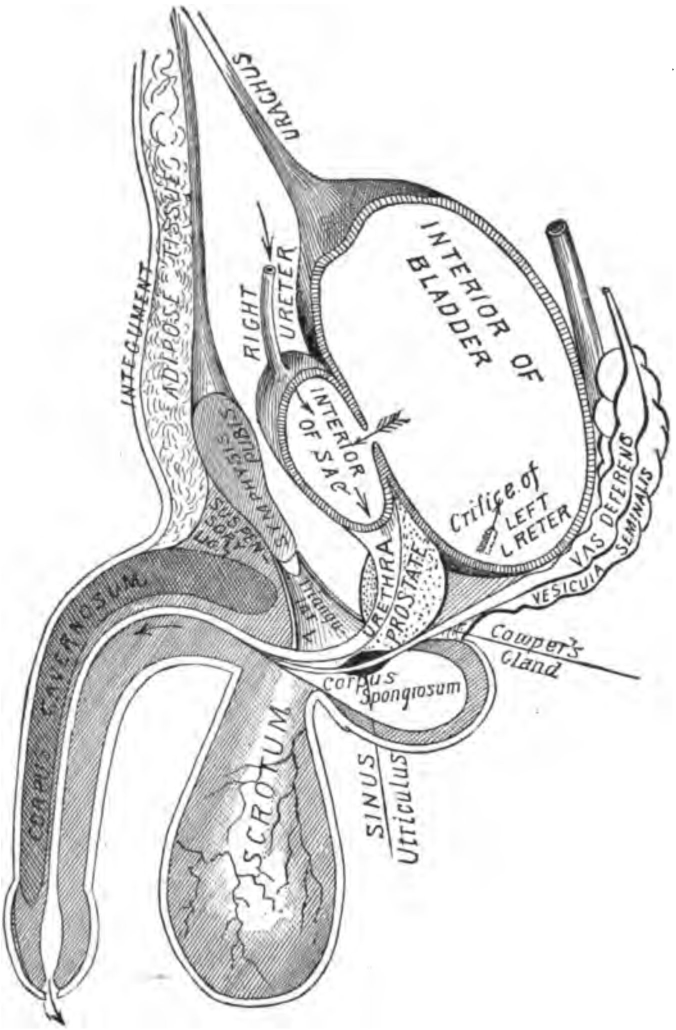
THE following brief history of a case of Bright's disease, complicated with vesicle and renal calculi, we found of interest in many of its very unusual anatomical anomalies, as well as because of its inherent nature. Many of its peculiar and unusual features were noted during its course, and later readily accounted for in post-mortem. But the anomalous course of the right ureter and its unusual point of entrance into the bladder, as well as the—so far as I know—unique manner of urethral exit from the bladder, were points of surprise to all who were present at the autopsy. The position of the saculated calculi was also quite exceptional. All these points will be made clear as we go on in the report of the case.

Mr. E., æt. 57, of general good health until about three years ago when he became dyspeptic, having much trouble with his stomach, digestion being often quite painful. For this he was treated by several different physicians with indifferent success. He was a shearer in the rolling mills of this city. His labor was therefore by no means of a light character. But he was a man of stout, heavy bone, thick, very strong muscle, of very little unnecessary adipose tissue, and well organized throughout. He was therefore well constructed for great strength and endurance. He was, however, a so-called moderate drinker of beer, and to this, in a large measure, his dyspepsia was due and ultimately his whole line of troublesome symptoms. I believe Bright's disease in this case was produced by his long continued use of beer. The calculi were more remote in their etiology.

He continued at his heavy labor steadily until the mills shut down about the first of June, 1881, at the opening of the general strike that then set in.

About June 4th he had an attack of retention of urine. Of this he was relieved by my friend, Dr. R. C. Bond, of this city. Catheterization was repeated once after this, in about twenty-four hours. A gum catheter was used. The quantity of urine was reported to be very large and quite normal in appearance, there being a little hemorrhage after the second catheterization. Dr. Bond prescribed for him once or twice after this. He soon improved so much as to go to Cincinnati, where he labored one day in the rolling mills in the place of his son who was absent. He also engaged work for himself in the same mill and was to commence there in a few days. He came home, and on one of the days in the latter part of June walked a distance of four miles to Lawrenceburg and return, an eight miles' walk. He noted all through the month of June that he was not as strong as usual, but still had enough vigor and strength to accomplish the effort above named without feeling exhausted. His appetite was fair, color good, flesh a little reduced, but aside from some vesical tenesmus or pollakiuria, nothing was noted by him or the family as being especially wrong. His pollakiuria, however, kept on the increase, and on July 3d his wife came to my office to secure relief from this trouble and for something "to give him strength and appetite." At her second coming, two days later, at my request, she brought a sample of his nrlne. This I found to be acid, 1020 sp. gr., containing about 25 per cent.. albumen, some pus and mucus; quantity per day, Oiii. Under the microscope I found an abundance of the ammonio-magnesian crystals and also some crystals of oxalate of lime, some pus cells, considerable epithelium from the bladder and ureters, with an occasional cast from the kidneys. After this, frequent examinations of his urine were made with substantially the same results and disclosures. There had been no prolonged history of pollakiuria, of sudden stoppage of urine during micturition, nor of pain in the glans penis; of bloody urine, pain in the bladder or lumbar region during work or while walking; nor had the urine been charged with mucus or pus, or any of the products of vesical inflammation, to a sufficient extent to call attention to it, until he was catheterized at the time above named, and not after that until after his attention was called to these symptoms after coming under my care.

On the 8th of July, I drew off, with a gum catheter, about twenty-four ounces of normal looking urine. The analysis, however, disclosed its morbid character in unmistakable terms. I then supplied him with a soft gum catheter, and he drew his own urine several times a day without trouble and with great relief to his pollakiuria. The prostate gland was enlarged, and to this his most troublesome symptom was attributed in a large measure, but not altogether so. He could not pass his urine without the aid of the catheter, only by a little at a time and with great tenesmus. The absence of many of the symptoms of urinary calculi, together with the presence of enlarged prostate gland, and with free albuminuria, connected with a history of symptoms that are often found to precede Bright's disease; led me to no more than suspicion of gravel in the bladder. The pus in the urine caused me to suspect strongly that a calculus was in one of the kidneys, as did also the heavy yield of ammonio-magnesian crystals. I diagnosed Bright's disease, with renal calculi, causing pyelitis; and, also, enlarged prostate gland, giving rise to chronic inflammation of the bladder from partial retention of urine. Eight days before his death he felt quite improved and had been sitting about his home for several days. He walked a distance of about four squares, was shaved and returned. This was done without my knowlege or consent. On his return he was attacked with a well marked chill, followed by very profuse sweating, obstinate vomiting and retention of urine. He now failed to relieve the bladder with his soft rubber catheter, and therefore sent for me. I failed with it also and introduced the common silver instrument, and with this drew off only a few ounces of urine, strongly ammoniacal and thick with mucus and pus. I now introduced the double canula and washed out the bladder with a warm solution of boracic acid. This afforded great relief. While introducing the silver catheter, and also the double canula, they came into unmistakable contact with a large concretion. This was confirmed at every subsequent catheterization. The presence of the calculus was felt and its sound heard by others as well as myself. At once the question of removal became uppermost, but in my own mind was negatively decided on account of his present great prostration, irritable stomach, and the existence of—as I believed—extensive organic disease of the kidneys. Drs. R. C. Bond and W. C. Henry concurred



S. H. COLLINS, ARTIST, LAWRENCEBURG, IND.

in this decision. All efforts to quiet his stomach failed, and from that date until his death at 3 o'clock P. M., August 6th, he went steadily and rapidly down. No remedy used seemed to in the least influence his steady, rapid retrograde. The vomiting was of that character often observed in the last stage of Bright's disease, and which portends a speedy fatal result.

We now present what to us was a very interesting part of the history of this case, viz., the autopsy.

Aug. 7th, at 10 o'clock A. M., with the presence and aid of Drs. R. C. Bond, James Lamb, W. C. Henry, and H. H. Sutton, the postmortem was held. Body in ice, rigid, somewhat emaciated, very little adipose tissue over abdomen, opened only the abdominal cavity, and examined only the urinary organs On cutting down to the bladder, found a large saculated tumor resting almost squarely on the anterior surface of that viscus. The tissues all around the bladder were very firmly adherent—adhesions old—showing unmistakably that a severe former inflammation had done its plastic work.

The bladder was cosniderably distended with fluid. An attempt to draw it off, measurably failed for the catheter entered only the anterior saculated portion. However by slipping one hand behind the bladder and pressing smartly forward considerable very dirty urine was forced into the saculated portion and out through the catheter; but still a large portion remained. We now removed the bladder, ureters, and kidneys, quite entire, but on account of the very firm adhesions, in a somewhat mangled condition, so far as the tissues around the bladder were concerned. On opening the bladder we found it contained quite a pint of muco-purulent fluid. The mucous tunic was entirely disorganized, the muscular and peritoneal tunics were greatly thickened. This purulent fluid was washed out and the fálse sac opened. Here we came upon two large calculi—black, smooth, faceted stones—the larger weighing 373 grains, the smaller 150 grains. They were closely packed in their saculated bed, the facets and smooth surfaces attesting their considerable age.

On opening the sac we found it presented three perforations, one for the inlet of the right ureter, one for urine to pass from the sac by way of the urethra, and one communicating with the bladder as shown in the accompanying cut.

It will be seen that this saculated portion was situated squarely on the anterior face of the bladder, and behind the pubes. Hence it was unusual and unexpected to find one on the ureters opening into it. The right ureter opened into it well toward the right upper portion, so that the urine coming from the right kidney kept the concretions constantly bathed as it trickled down over them.

Again, it was found that the urethral outlet was from the lower anterior portion of this sac (see cut), and that the urine must all pass out by way of this false sac before finding urethral exit. For this anatomical reason, the catheter entered only the false sac. Therefore after the tunics of the bladder lost their contractile power, the great reservoir of urine was left in the bladder after catheterization. The communication between the false sac and bladder was by an opening large enough to admit an ordinary lead-pencil, and all urine from the bladder must needs pass through this into the false sac before it could be expelled per urethra or by the catheter. This anatomical relation of the bladder to the urethral exit will readily account for the but partial emptying of the bladder by natural efforts and by the catheter, and hence the presence of decomposed urine and disorganized condition of the coats of the bladder found in post mortem.

The right kidney was very greatly enlarged, quite three times the normal size, was smooth, mottled, granular and very friable. The left was atrophied, friable, contained two calculi, one weighing 28 grains, about the size of the common black acorn, and one 3 grains. There were evidences of purulent infiltration and the pelvis was somewhat dilated.

In conclusion, it will be remembered that this man continued steadily at his heavy work until June 1st, 1882, without complaint, so far as any one heard, of any vesical trouble, lumbar pain, or general weakness; that on the nights of the 4th and 5th of June he had retention of urine requiring the use of the catheter. Before this there had been no reason to suspect stone in the bladder, the usual symptoms being all absent. The urine was fairly clear and free in quantity, there being a little issue of blood from the urethra after the second catheterization and a little more mucus than normal. After this attack of retention he so far recovered as to walk eight miles in one afternoon, and also to go to Cincinnati, labor one day in the rolling mills and engage steady labor for himself for the future. By the 3d of July he began to feel his weakness in a marked degree, and now was troubled with severe vesical tenesmus. Still there was not the usual pain in the glans penis characteristic of stone. Yet the post mortem disclosed two large calculi in their saculated bed, hard, smooth, faceted, black, indicating clearly that they had existed for years rather than for only a few days. No history of previous bladder trouble or painful micturition, or of nephritic colic could be obtained. He could only state that about sixteen years ago, while in England, he was quite sick once for a short time, but did not remember the nature or name of his illness. We see here what has been well attested before, that a large saculated concretion may be carried for a long period without marked trouble, or its presence being suspected. Again, it will be noted that this man had two calculi in his left kidney, the larger being the size of a common small black acorn, not very smooth, and yet no pain was ever complained of in the region of these organs, nor was there ever any hæmaturia except after catheterization. Also that this man was far advanced in Bright's disease before any suspicion of its presence was made known, and that up to two months before his death he performed hard labor, and did some heavy labor much later than this—late in June. But most of all, we desire to call especial attention to the anomalous features set forth in the illustration above given, showing the position of the sac, calculi, right ureter, urethral opening and the opening from the sac into the bladder.

Proceedings of Societies.

Health in Michigan.

Compared with the average of reports for the months of October in the preceding five years, all diseases named in this report except influenza, puerperal fever and small-pox, were less widely prevalent during the week ending October 21, 1882, than usual.

For the week ending October 21, 1882, the reports indicate that rheumatism, dysentery, remittent fever and influenza, increased, and that inflammation of the bowels decreased in area of prevalence.

At the State Capital during the week ending October 23, the prevailing winds were north; and, compared with the preceding week, the average temperature was lower, the average absolute and average relative humidity less, the average day ozone the same, and the average night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending October 21, and since, at 22 places, scarlet fever at 11 places, and measles at three places. Small-pox was reported at Niles, October 21.

Including reports by regular observers and by others, diphtheria was reported present during the week ending October 28, and since, at 25 places, scarlet fever at 15 places, measles at three places, and small-pox at two places, as follows: at Niles, October 28, and at Grand Rapids (three new cases), October 30.

At the State Capital, during the week ending October 28, the prevailing winds were northwest and west; and, compared with the preceding week, the average temperature was lower, the average absolute humidity slightly less, the average relative humidity slightly more, the average day ozone more and the average night ozone the same.

For the week ending October 28, 1882, the reports indicate that dysentery and remittent fever considerably decreased, and that cholera morbus, rheumatism, typho-malaria fever, cholera infantum, diarrhœa and tonsillitis decreased in area of prevalence. There was no marked increase in any of the diseases tabulated.

For the month of October, 1882, influenza, bronchitis, diarrhœa, cholera infantum, dysentery and erysipelas seem to have been more prevalent, and remittent fever, diphtheria, intermittent fever, scarlet fever and whooping-cough less prevalent than the average for October in the preceding five years. It will be seen that the most noticeable decrease is in the communicable diseases most to be dreaded in Michigan.

For the week ending Nov. 4, 1882, the reports indicate that tonsilitis considerably increased; that scarlet fever and typho-malarial fever increased, and that intermittent fever and diarrhœa decreased in area of prevalence.

At the State Capital the prevailing winds, during the week ending November 4, were northeast; and, comparing the averages with the averages for the preceding week, the temperature was slightly lower, the absolute and the relative humidity less, and the day and night ozone considerably less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending November 4, and since, at 25 places; scarlet fever at 19 places; measles at two places, and small-pox at two places, as follows: at Niles and at Grand Rapids (one new case), November 4.

For the week ending Nov. 11, 1882, the reports indicate that puerperal fever, brochitis, tonsillitis, cholera morbus, membranous croup, dysentery, and rheumatism increased, and that erysipelas, typhoid fever, and typho-malarial fever decreased in area of prevalence.

At the State Capital the prevailing winds, during the week ending November 11, were southeast and south; and, in comparison with the averages for the preceding week, the temperature was higher, the absolute and relative humidity greater, and the day and night ozone more.

Report from sanitary inspectors during the week ending November 11, mention three cases of measles found among immigrants arriving at Detroit.

Including reports by regular observers and by others, diphtheria was reported present during the week ending November 11, and since, at twenty-five places, scarlet fever at nineteen places, measles at four places. Small-pox was reported at Grand Rapids November 11.

HENRY B. BAKER,
Secretary.

LANSING, Nov. 16, 1882.

Detroit Academy of Medicine.

Regular meeting of the Detroit Academy of Medicine, July 11, 1882.

PATHOLOGICAL SPECIMENS.

Dr. Connor exhibited a microscopical specimen of cancerous tumor of brain, with the following history:

The patient, a Polish boy, having up to three years ago enjoyed good health, discovered a little tumor growing on neck near mastoid process. The physician to whom he applied for treatment burned it off. Still it kept growing, and when I saw him he suffered from a large growth over mastoid process, with catarrhal inflammation of ear. The year previous he had had a convulsion.

I advised at the time an operation on the tumor. He had the tumor removed in St. Paul, Minn., two years ago, which resulted in total loss of sensation and motion about the eye. I suspected the presence of a tumor of the brain pressing on the optic nerve, causing the distressing symptoms. There was absolute paralysis of all the nerves to the eye, without degeneration of its substance. The eye was removed, the patient recovered fully from the effects of the operation itself but continued to emaciate and finally died.

Post mortem.—The membranes surrounding brain were found to be normal. The space where optic thalami should have been was found a hard mass, reaching down on tentorium to foramen magnum, to which it was firmly attached. I was unable to determine whether this tumor was connected with the one which had existed over mastoid process externally. The tumor proves to be cancerous. There was no disturbance of the senses with the exception of some loss of sight and hearing.

Meeting adjourned.

LEWIS E. MAIRE, M. D.,
Secretary *pro tem.*

Regular meeting of Detroit Academy of Medicine, Sept. 12, 1882.

WRITTEN COMMUNICATIONS.

Dr. Carstens read a report of three cases of Battey's operation, undertaken for the cure of hystero epilepsy. In two of the cases the operation was completely successful, and the epileptic attacks have not recurred. The third operation was less fortunate in its termination, the patient having died suddenly a few days after it was performed—an accident attributed to the poor quality of the suture wire employed. In all cases antiseptic precautions were observed, but the carbolic acid spray was not employed.

Dr. Spalding: I think it is not enough to say that Battey's operation in cases such as Dr. Carstens has described, is "warrantable." The operation is the only measure which offers any hope of arresting a malady which is not only distressing in itself, but which results in a condition worse than death. It is not too much to say that it is the plain and imperative duty of the physician in such cases to advise and urge the operation. My own experience convinces me that chronic inflammation of the ovaries is not amenable to any ordinary treatment.

Dr. Cleland asked whether the doctor omitted the use of carbolic spray in his operations from choice.

Dr. Carstens: I think the spray is likely to do more harm than good. I am particular to use all other antiseptic precautions, especially with reference to the instruments and sponges employed. I think there is danger of carbolic acid poisoning from the use of the spray.

Dr. Cleland: It seems to me that there must be sometimes difficulty in making out a certain diagnosis in these cases. Convulsive attacks not unfrequently occur at the menstrual period when the ovaries are not the seat of disease.

Dr. Carstens: In order to justify an operation, there must be not only the history of convulsive attacks at the menstrual period; these may come from uterine irritation simply; we must have positive evidence that there is inflammation of the ovaries—tenderness on pressure, etc.

Dr. Spalding: The inflammation, I may add, must be chronic in character to justify an operation.

Dr. Connor: I have been interested in the history of this operation and in the discussions that it has called out in late years. Some have been enthusiastic in its defence, and have urged its more frequent performance on trifling occasions; others, and among them Dr. Battey himself, believe that the operation, although it has its legitimate place in surgery, ought to be only a last resort, and think that it has been often performed without sufficient warrant. As in the case of other new operations, ambitious young surgeons are more anxious in operating to distinguish themselves than to do the best thing possible for their patients, and we must expect that in a few years the conditions which justify it will be much narrowed, and will be more clearly defined than at present.

Dr. Andrews: With regard to antiseptic precautions in surgical operations I have watched with much interest recent discussions. It seems to me obvious that the thing to be aimed at is the exclusion of germs. The object of the spray is to destroy existing germs; the same end may be accomplished by excluding the germs altogether from the operating chamber, and this would seem to be in fact the more rational and obvious mode of procedure.

Dr. Cleland: In all operations on the abdomen it is of great importance to maintain a high temperature in the room.

Dr. Noyes: I have been long convinced that the use of the antiseptic spray was carried beyond all reason. In many cases I have seen the spray used where it seemed to me that it was a source of positive danger to the patient. The intestines, where the spray played upon them, would become speedily red and injected, and it did not seem to me that they could escape from serious harm. A moderate use of the spray may be a useful prophylactic measure. The fact is that Listerism is just now the fashion in surgery, and like all fashions must have its day, regardless of reason.

PATHOLOGICAL SPECIMENS.

Dr. Andrews: Here is an interesting specimen of biliary calculi, removed post mortem from a patient who recently died at St. Mary's Hospital. When admitted to the hospital the woman was evidently suffering from retention or suppression of the bile. The liver was slightly enlarged, but I could not make out any distention of the gall bladder. The skin was slightly jaundiced, the stools were fetid and of a clay color. There was intense gastric irritation, and the patient was evidently anæmic. The diagnosis could not be positively made out. Whether there was a malignant growth, or whether the bile duct was closed by gall stones, or from some other cause, could not be determined, although the patient's complexion rendered the first alternative the most probable. There was however no tumor discoverable, nor other positive evidence of carcinoma. The icteric symptoms soon developed in an extraordinary degree, the skin becoming finally of a brilliant orange color. The patient died at last rather suddenly, apparently of exhaustion, perhaps of cholesteræmia. The post mortem revealed an accumulation of fluid in the abdominal cavity, a fatty condition of the liver, and the presence in the gall bladder of these gall stones.

Dr. Wyman: Was there a voracious appetite?

Dr. Andrews: No; there was no history, either, of any attack of "colic," from passage of gall stones into the intestines.

Dr. Cleland related the history of a somewhat similar case, in the person of a man who had suffered nearly three months before he came under his observation, but lived only two weeks after he first saw him. His symptoms were vomiting, obstinate constipation and jaundice. In this case also death was sudden.

Dr. Wyman: I have lately had a case which presents some features of interest. Two years ago the patient, a woman, complained of pain in the lumbar region. There was a distinct tumor and a train of symptoms which led to a diagnosis of abscess of the kidney. A few weeks ago I found the patient suffering from ascites. I removed the fluid, and found the liver considerably enlarged, while there was a tumor present which, from its location, I judged to be an enlarged spleen. The patient has since died, and post mortem examination showed that at the time of death the liver was not much enlarged, the spleen not at all.

The kidney showed a condition of pyo-nephrosis, with deposits of earthy phosphates, and behind it an abscess showing an effort of nature to afford escape for pus.

The question that interested me was in regard to the enlargement of the spleen observed immediately after tapping but subsequently disappearing.

Dr. Connor exhibited Goodwillie's apparatus for blowing powders into the nose, throat, etc. The powders are furnished with the apparatus, being prepared with especial care to secure a condition of impalpable fineness.

Adjourned.

A. B. LYONS,
Sec'y. pro tem.

Regular meeting of the Detroit Academy of Medicine, held at the office of the Secretary, September 26th:

EXHIBITION OF PATIENTS.

Dr. Spalding introduced a patient, a young man of 18 years.

History as follows: One year ago last January began to fail, being much debilitated without any apparent cause, appetite keeping up and at times voracious, bowels regular. Consulted a physician at that time for worms, but none were found, from which time until a year ago has floated through the hands of several physicians, including Drs. K. & K.

Dr. Spalding first took charge of the case about a year ago and on examining the urine found occasionally the oxalate of lime and casts; has made repeated examinations of urine since without revealing anything more.

Previous history of self-abuse was elicited from the patient, who since a considerable time has discontinued this pastime.

His weight has fallen off considerably notwithstanding a sojourn in the country; he has also been troubled with dizziness and intense headache.

Had taken phosphorus, strychnia, electricity and other treatments without avail.

In answer to inquiry by Dr. Connor as to the location of the pain the patient answered in the fore part of head and said that it was more of a dizziness and sickness than a positive pain.

Dr. Spalding said that for this he had given bromides, camphor and ergot

Dr. Robertson: Do your eyes trouble you when you read? Patient: Yes, cannot read for any length of time.

Dr. Cleland inquired regarding the oxalate of lime in the stools and also of the character and size of the evacuations.

Dr. S. in answer said that the calcium oxalate was only an occasional symptom and was readily discernable with a 500 objective, and that the stools were semi-liquid and not excessive.

Dr. Wyman asked if there was any sugar in the urine; also if the evacuations from the bowels had been examined.

Doctor S. in answer to both questions said no.

Dr. Yemans asked if there were any phymosis, and an examination proved the negative.

A question by Dr. Cleland addressed to the patient whether food distressed or not elicited the fact that pain was felt in region of stomach; also in the chest; and that it was hard to breathe and at times he was considerably inflated with gas, but this was variable with different meals.

Dr. Cleland: Sleep well the whole night? Ans. Yes.

Dr. Robertson: Any rheumatism? Ans. No.

Dr. Wyman asked Dr. Spaulding if he had found any physical lesions, and received a negative answer.

Dr. Cleland: Is there any fat in the urine? Ans. No.

Dr. Wyman suggested that the doctor should pass a stomach tube about two hours after eating and then examine what was withdrawn, also carefully examine the stools, as in his opinion where food was taken in abundance with no observable improvement it augured serious complication of some of the abdominal organs.

Dr. W., had seen a case of diabetes where no sugar was found in the urine, but on examining stools was able to make the above diagnosis, sugar being present in the evacuation.

M. STEWART, JR., Sec'y.

Oct. 10, 1882.

The Academy met at the office of the president.

WRITTEN COMMUNICATIONS.

Dr. Petershausen read a paper on "Anomalies of Constitution as Causes of Disease," giving the results of recent studies on this subject by Beneke.

PATHOLOGICAL SPECIMENS.

Dr. Bradley exhibited a photograph, natural size, of the mucous membrane of a portion of the bowel of a man who recently died in the first stage of typhoid fever.

The patient was under the care of Dr. O'Connor; came into the hospital on the 11th of September, being then in the prodromic stage of the fever. Death took place five days later.

The photograph showed distinctly the enlarged condition of the solitary glands, as well as of Peyer's patches. The mesentery was also greatly thickened.

PREVAILING DISEASES.

Dr. O'Connor: There have been a large number of cases of typhoid fever in the Marine Hospital.

Dr. Bradley: It seems to me that typhoid fever is becoming much more prevalent than formerly among sailors. The number of cases treated at the Marine Hospital when I was there some years ago was comparatively small. It is easy to point out the causes which must favor the development of the disease, in the crowded and ill-ventilated forecastles they occupy—and especially in the proximity of the bilge water with its foul smells and its possibilities as a nursery of disease germs.

On the western rivers the rousters sleep on deck. They are consequently less liable to diseases produced by crowding, but they suffer from exposure, and are subject to pneumonia, etc. The accommodations for sailors are everywhere very poor in the Merchant Marine; even on a United States Revenue cutter, notwithstanding the scrupulous attention paid to outward cleanliness, I have noticed about the sleeping places of the men a bad odor.

Dr. O'Connor: Among the cases lately under treatment at the hospital, one of the most instructive was that of a patient suffering from chronic cystitis, of long standing. We have treated the case by frequently washing with solutions containing boracic acid, atropia and glycerine. Internally we have administered potassium acetate. The patient was unable to hold his water more than ten minutes when he came to the hospital. He can now go five hours without inconvenience. We use the boracic acid in the proportion of 1 drachm to a pint of water; atropia one grain to the pint. I believe the secret of success in this case lay in the frequency of the applications.

Dr. Yemans: I have used in such cases a strong solution of silver nitrate, 20 grains to the ounce, with nice results.

Dr. Wyman: Dr. Mussey, of Cincinnati, recommends in such cases scraping the mucous membrane of the bladder with a curette, claiming, from personal experience, good results from this mode of treatment.

Dr. Connor spoke of a case of hematuria, which had furnished a fine pathological specimen, now in possession of Dr. Andrews.

Dr. Bradley: In my practice, typho malarial fever has predominated. The patients have been of all ages, from infancy to old age, but the fever has run nearly the same course in all. One of the cases developed typho pneumonia and died. The rest have recovered, or are on the way to recovery. The cases have all exhibited the rose colored spots. Temperature has been from 101° to 105° or 106° F. Defervescence has occurred in about three weeks—in one case with a critical sweat.

Dr. Connor: I have seen during the past month a large number of cases of acute granular ophthalmia. I do not know of any especial cause for its prevalence. There has been in many of the cases very little pain; the discharge has been generally abundant, the granulations numerous and large. The disease has shown itself quite amenable to treatment. Whether the disease has any relation to the influenza said to be prevalent, I am unable to say. I should like to inquire if any of the members of the Academy have treated acute articular rheumatism by large blisters over the region of the breast. Such a treatment I have lately seen recommended by an eminent English physician—under the belief that endocarditis precedes inflammation of the joints in these cases.

Dr. Wyman: I have seen a theory that ophthalmia is due to the invasion of a species of bacillus.

Dr. Connor: Such theories are just now all the rage. Whether they be true or not, however, we employ in the treatment of the disease such efficient parisiticides as boracic acid, mercury, iodoform, etc.

Dr. Petershausen: I have had several cases of pneumonia, originating in exposure during the cold spell we had a few weeks ago.

Dr. Connor: As bearing on the antivaccination movement, I notice that Dr. Hauxhurst, a dentist of Battle Creek, Mich., and a strenuous opposer of the practice of vaccination, has fallen a victim to small-pox abroad. His wife was vaccinated only after he took the disease, but escaped.

From all parts of Michigan physicians report the season as "distressingly healthy," and the official reports of the State Board of Health confirm their truth.

Adjourned.

A. B. Lyons,
Sec'y *pro tem.*

Correspondence.

Editor Detroit Lancet.

DEAR SIR—I am in receipt of a reprint of an article published in the Lancet for October, 1882, in which my name is quoted as having endorsed Battle & Co.'s Bromidia and Iodia. Several months ago, when my attention was called to the fact that my name appeared in the circular of the above firm, I at once wrote to St. Louis and requested the omission of my name from the circular, as I had not given authority to Battle & Co. or any one else to publish my name as an endorsement of their preparations. Whether this has been complied with or not I do not know, but believe my name has been omitted, as I received word that Mr. Battle would call on me shortly. Hoping that you will kindly call the attention of your readers to my statement I remain

Yours truly,
C. Seiler, M. D.

1346 Spruce St., Philadelphia, Pa.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

What is the Remedy for such Medical Men as Object to the Compulsory Registration by them of all Deaths and Infectious Diseases?

THIS question has been agitated in Great Britain and to some extent in this country. Pretty generally the sanitarians attempt to lay the burden of registration upon the medical profession. In England it is the ground of grevious complaint against the editor of the Association Medical Journal that as chairman of the committee whose duty it is to guard the interests of the medical profession, he actually introduced the clause requiring doctors under the penalty of fine and imprisonment to report all infectious diseases, etc. Concerning this there has been a vigorous kick and the "end is not yet." In this country generally the sanitary anthorities have not pushed matters so hard. But even thus there has been considerable opposition on the part of the medical profession. From a paper read before the late meeting of the American Public Health Association, it would seem that the laws relating to this question are such that the state can demand such service from doctors, and doctors can sue the state in the courts for their pay if they desire it. One or two sentences from this address we quote. The author says: "I would gladly see the State conferring an honorarium upon members of the medical profession for incidental services rendered to the public, but not in response to insolent demands for fees and threats of rebellion against needful law." Again, "If, then, medical men in any particular locality wish to test the validity of statutes and ordinances requiring them to make death certificates and report cases of infectious diseases, my sincere and earnest advice to them is, that they proceed by a courteous demand for compensation, and not by a defiant refusal to obey the law.

They will thus secure the sympathy, if not the co-operation of the health authorities. The public, for whose benefit and protection the State uses its almost unlimited police power, will in that case be much more inclined to treat their claim with consideration and respect."

There are several points worthy of notice in these sentences. It is doubtful if the health authorities will co-operate with the medical profession even if the profession follows the course advised by this health officer. If the profession pursues any other course it will not have even the "sympathy" of the health authorities. To the medical profession these health authorities owe their origin and their support.

But it seems as if they now thought they could walk alone by the aid of politicians. Is the medical profession prepared for this domination? In England the profession is not disposed to sit under it without protest. Perhaps the same result may follow in America if the profession is pushed too hard by these health authorities.

The same spirit crops out in the first sentence quoted. The writer tells the profession that he will not regard with pleasure the granting of compensation to such doctors as demand pay for their services. If in its sovereign pleasure the state sees best to grant an honorarium upon members of the medical profession for services rendered, then he would be glad. But doctors must sit passive while the political bummers decide the matter. In short, he rejoices in a medical profession "meek and mild," not in one "strong to claim and assert its rights." Such a medical profession might be more satisfactory for domineering health authorities to deal with, but we fancy that the spirit of independence and liberty, and individual rights has not as yet departed from the descendents of the Pilgrim Fathers. It gives us pain to write these sentences. But we were told generations ago that "eternal vigilance is the price of liberty." In this matter since the health authorities have seen fit in a wide extent of country to attempt to "drive" the medical profession to do their work and "oppose compensation" therefor, we hope that medical men will stand out for their legal rights. Since the health authorities have seen fit to develop a spirit of antagonism, there is nothing left to the profession but to let them make the most of their tactics. Here and now we affirm our belief that the cause of equal rights will win.

We know that the best men in the medical profession have stood ready to help in every practicable manner the health authorities. But even these do not like to be driven to a service, by the threat of fines and imprisonment, which they would have done freely from simple love to the cause. The mistake with the health authorities has been in their endeavor to drive instead of draw. We believe that when carried to our Supreme Court it will be decided that the physician must have compensation if compelled to register deaths and cases of infectious diseases. No other decision seems to us to accord with the dictates of good sense.

All along the controversy there has seemed another solution that is perfectly practicable and thrôws the burden where it belongs. It seems to us that the State may properly demand of each householder that he report all deaths and cases of infectious diseases that occur under his roof. In this case to serve his patient, who pays him, the physician would fill out the needful blanks and charge the same to his patient's account. In this manner the persons specially interested would have to bear the burden of reporting, and the State would get the information called for by the sanitary authorities. But to us it seems altogether out of place that the physicians should act as a "police officer" without a "policeman's" pay.

Personally, we have the one desire of promoting the best good of the medical profession and of the health interests of the country. We know enough of the temper of the medical profession to be convinced that all demands upon it in an arbitrary manner, and unjust in principle, will do very much to alienate it from its labors in behalf of public health. Certainly this spirit is bad for all parties. Boards of health are not so firmly established in the hearts of the people as to be able to afford to kick the medical profession too hard. They had better take as their motto, "Go slow."

At the same meeting of the Public Health Association, an effort was made to start the plan of requiring medical men to register their cases of venereal diseases. But a member with more wisdom than many of his associates, aborted the effort. No doubt the registration of cases of venereal diseases would be a protection to the people, but the physicians are not desirous of destroying their own usefulness by thus playing the part of public detectives of their patients' vices. Our fear is that some of the crazy sanitarians will so persist in their mad schemes as to dishearten and disgust many earnest workers in this important field.

One of the Vagaries of the Anti-Vaccinationists.

Every advance in the means of preventing disease meets more or less opposition from those whom it was designed to benefit. As it was in the days of Noah so is it now. Men will not get into the ark at the warning of the wise. They had rather have their own way and be destroyed than accept the views promulgated by others. In a late issue we called attention to the death of a learned physician from small-pox, far from home, because he would not be vaccinated. Such deaths are not at all unusual among the laity, but they are somewhat rare among educated medical men.

A pamphlet lies before us written by a Connecticut physician. In it the effort is made to class vaccination with Pasteur's alleged discoveries in disease prevention by means of the previous introduction of germs. Because Pasteur's conclusions are still unproved, our New England doctor tries to show that vaccination and Jenner are humbugs. As a fact the evidence for or against vaccination rests solely upon clinical experience. Has it or has it not hundreds of times demonstrated its power to protect a community from small-pox? This is a question of fact to be answered as any other question of fact.

To our mind the evidence that it has protected and that it does protect is as strong as the evidence in support of the revolution of the earth about the sun. We are told that some people do not believe this. Certainly we can believe that a mind which is so constituted as to reject the proofs in favor of vaccination, will also deny that the sun is the centre of the earth's motion. Science has not as yet demonstrated the morphological state of vaccine matter. If it is a germ, we have not seen the proof. If it be simply a peculiar form of excretion we have not seen an account of its composition. In short, we know nothing of its real nature, any more than we know the real nature of small-pox itself. We know something of the phenomena following its introduction into the human system, but of its real nature we are utterly ignorant. Hence it is not to be classed with Pasteur's researches concerning the nature and prophylaxis of charbon. Pasteur claimed to have discovered that a definite organism produced charbon in sheep, and that another definite organism would destroy that of charbon in some manner perhaps, as ducks eat earth worms. Hence he reasoned that if the destroyers of the charbon germs were introduced into the sheep before the charbon germs they would protect the sheep by eating up or otherwise rendering harmless the deadly germs. Extended experiments have thus far failed to establish these claims. Hence, at the present time Pasteur's researches count for but little.

But what we object to in the pamphlet before us and in all similar writings, is the claim that because these researches of Pasteur lack a rational basis, therefore vaccination lacks a rational basis. The evidence upon which vaccination calls for the attention of all intelligent persons is totally different from that adduced in support of Pasteur's work. We are passing through a craze respecting the causation of disease. This craze is the idea that germs produce most forms of disease. Minute organism do produce itch, and a considerable number of cutaneous lesions, and some internal or constitutional affections as trichinosis, etc. But that the exanthematous diseases are produced by germs is certainly not proved and all talk about this or about the germs of vaccine matter is speculation only. Any effort to ally vaccination with Pasteur's researches respecting charbon,etc.,is unscientific and misleading. Better let vaccination stand on its solid basis of clinical demonstration, just as small-pox stands.

The Late Meeting of the American Academy of Medicine.

This was held in Philadelphia, Oct. 26th and 27th. As it was at the same time as the celebration of the landing of William Penn, quite a considerable number of gentlemen were present (about forty). Thanks to the enterprise of the excellent secretary a considerable number of papers were read and more discussion had upon them than is usual. The papers dealt with questions of interest to the general medical profession, and in some respect relating to the objects of the Academy. With these objects we are and have ever been in hearty sympathy. In fact were it possible we would prohibit any person from entering upon the study of medicine until he had completed a full course at a regular literary college. That this is not practicable we are well convinced. But the next best thing is to keep before the profession, and as far as possible before the people, the idea that such an education is most desirable.

Our friend Dr. H. O. Marcy, of Boston, was elected President. The Secretary and Treasurer are as formerly Dr. Richard J. lison.

The next meeting is to be held in New York, Sept. 1883. Is it wise to keep all the meetings close to the Atlantic coast? If it is to be an American Academy it must represent America. This it can do but slightly so long as it does not arrange its meetings as to place so that all the burden of travel, etc., is not laid upon those away from the Atlantic coast. In short, it should meet near the centre of population of the country, or if not thus, then alternately east and west. Of course, if it is not desired to obtain a representation from the west and south, the present plan of meeting is admirably adapted to gratify such desire. Certainly something should be done by it to merit the title American, or it should change its name to North Eastern States Academy of Medicine. If by some other means than those suggested it can be made a veritable American academy, we shall be satisfied. We have sought to extend its membership in the northwest, but the constant objection made is the one to which we have called attention. Why, say those to whom we suggest the joining of the Academy, should we join a society that always meets close to the Atlantic coast, and at a time when it is impossible for us to leave our professional work? Nor are we able to make many see why. Perhaps the reason is that we are not ourselves clear on the subject. We have no question that the same difficulty is met elsewhere.

If to catch rabbits it is needful to set the traps near the places through which they run, then it is necessary to have the meetings of the Academy convenient to the membership it would gain.

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Last Annual Report of the Army Medical Department.

The medical profession has a special interest in this report. As a fighting corps, it may truly be said that the United States Army is an unimportant affair. But the medical work performed by some of its officers, the publications issued from its office, its magnificent library and unique medical museum, all are worthy of the country, the army and the medical profession. We notice that since the additions to the corps of clerks in the pension office a number of cases equal to the new cases presented during the year were disposed of. As these numbered twenty thousand more than during the previous year, there is some hope that during the coming years some progress may be made in reducing the list of cases on hand. It is a shame that such provision has not been made that all of the cases could be attended to as fast as they are presented to the pension office.

The health of the members of the army presents nothing worthy of remark here.

The cost of the medical supplies during the past year was something more that one hundred and eighty-one thousand dollars. The estimate for the coming year is two hundred and fifty thousand dollars.

To the medical library have been added during the past year three thousand two hundred volumes and three thousand five hundred pamphlets. This increases the total collection to fifty-seven thousand volumes and sixty-three thousand seven hundred pamphlets. The manuscript for the fourth volume of the Index Catalogue is now going through the press. The estimate for the printing of volume five has already been made and it is hoped that it may be allowed by the coming Congress. The practical value of these volumes becomes more apparent as the publication of the work progresses. The use of the library by the medical profession is steadily increasing. Such arrangements have been made as to permit each scholar to use the library without a visit to Washington. Over one thousand letters were sent out in answer to requests for special information.

The third volume of the Surgical History of the War of the Rebellion is so nearly completed as to call for an appropriation from the coming Congress for its speedy issue.

Attention is directed to the fact that the present quarters of the library are too small, are inconvenient and are unsafe. Hence a fire-proof building is an imperative necessity. It should be provided for at the earliest possible moment. The loss by fire to which the museum and library are constantly exposed would be irreparable. The collection is of National importance and should be cared for with a Nation's liberality. Let each doctor make it his business to interview the congressman of his district on the matter of needful appropriations for the several objects enumerated in this report. In this way we may be pretty sure that the appropriations will be made.

Again, students will not forget that the use of these collections is at the service of each, under such conditions as are needful for the common good of all.

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Shall Physicians Aid Pharmacists in Their Endeavors to Keep the Science and Art of Pharmacy Unstained?

It has been ever thought by the best men in the professions of medicine and pharmacy that the best interests of both professions demand the greatest diffusion of every advance of either profession. In so far as they are professions, their members are teachers, bound by quite different laws than those of trade proper. We desire for a moment to direct attention to the inquiry above stated. There are some pharmacists of education and honor, real professional men, as much so as members of either of the professions of law or medicine or theology. We could wish that all were such. But as in other professions, there are those who prostitute their profession to greed of gain. Concerning this latter class, we have nothing to say here and now. But we ask, shall the real professional men practicing medicine help the former class to preserve pharmacy from the ruin that threatens it? Without exception, this class of pharmacists condemn the trade-mark system as applied to medicinal compounds as the latest development of quackery. Trade-marked or copyrighted medicines find no place either in the pharmacies or works on materia medica.

As illustrative of the light in which this class of pharmacists regard such medicines, we quote the following resolutions unanimously adopted by the Pennsylvania Pharmaceutical Association at its last meeting in Altoona:

"WHEREAS, The copyrighting of common pharmaceutical names by registering them as trade-marks is one of the latest developments of quackery, it is hereby

"*Resolved*, That this association in the true interests of pharmacy protests against the injustice of allowing any such copyright, and it is also

"*Resolved*, That a circular signed by the president and secretary of this association be sent to each county medical society in this state, asking their aid to check the evil by requesting their members to avoid prescribing such copyrighted articles."

Here is a body of pharmacists, large and respectable, calling upon medical men to avoid prescribing copyrighted articles. Will the medical profession heed the call? These men say that such articles are harmful to legitimate pharmacy and legitimate pharmacists. Will the medical profession avoid the endorsement and the prescription of these copyrighted articles?

Among the reasons why the profession should do this, are:

Both are learned professions.

Both have common ethical principles.

Each is needful for the best development of the other.

Any serious harm to the profession of pharmacy must react upon the medical profession.

Any progress in the profession of pharmacy is seen to push the medical profession onward and upward.

The copyrighting men, the trade-mark men, are the common foe of both professions. In so far as is possible they try to lock up all knowledge and skill. None of their work appears in our text-books on pharmacy.

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Memoranda.

All but nine states have State Boards of Health.

At Pensacola up to Nov. 12th, there had been reported 2280 cases of yellow fever, of these 194 had died.

Dr. Chas. F. Folsom's place upon the National Board of Health has been filled by Mr. Geo. E. Waring.

In Ontario, Canada, there is one doctor to every 1125 inhabitants, so it appears from the last Medical Register.

The John Hopkins Medical School will be opened in the fall of 1883.

At its commencement, November 14th, Dartmouth Medical College graduated twenty-one doctors.

Only about half the usual amount of Norwegian cod-liver oil has been harvested this year.

No binding agreement can be made between the patient and the doctor, in Paris, as the patient is not regarded legally as a free agent.

In a dispute, over a fee a young physician of Nicholasville, Ky., was shot by a lawyer.

In a late meeting of the American Academy of Medicine, Dr. Sibbett said that Philadelphia was the home of quackery.

An ovarian tumor was recently removed from a child aged two years by Dr. Hingston, of Montreal; so says the *Canada Lancet*.

On Sept. 23d, died Prof. Friedreich Wöhler, the celebrated chemist of Göttingen, aged eighty-four.

The latest use of pepsin is to digest blood in the bladder, under circumstances which rendered other modes of rendering the blood liquid impracticable.

At a meeting of the Putnam County (N. Y.) Medical Society it was resolved that it did not approve of the Albany Code of Medical Ethics.

Through the Suffolk District Society the physicians of Boston give expression to their opinion that the water supply of that city greatly demands improvement.

Dr. Oliver Wendell Holmes, for thirty-five years professor of Anatomy in the Harvard Medical School has resigned his chair. He will devote himself entirely to literature.

From researches made by Dr. Schmidt, of New Orleans, it seems probable that the bacillus tuberculosis of Koch is simply a fat globule and a rod-like crystal of margaric acid.

The death rate in the city of Detroit, for October, is reported by the health officer of the city as 23.17 per thousand of the population per annum.

Once it was suggested to the Emperor of Austria that he establish a hospital for fallen women as is done in London. He is said to have replied that he had not money enough to roof over the whole of Vienna.

The Indiana *Medical Journal*, Vol. 1, No. 5, is before us. It contains thirty pages, is issued semi-monthly at $2 per year. It is neatly gotten up and well edited.

The English physiologist, Dr. W. B. Carpenter, delivers the Lowell Institute lectures this fall, topic: "The Physical Geography of the Deep Sea."

On September 14th, in Paris, died Georges Leclanche, aged forty-four. He was best known as the inventor of the peroxide of manganese battery which bears his name.

It is also said that the health of Dr. J. J. Woodward is steadily failing. The health of Dr. Barnes, ex-surgeon general of the United States Army, is so feeble as to cause his friends great anxiety. Sir Thomas Watson is also in feeble health. He is said to have announced on appreciating his symptoms "this is the beginning of the end." He is now in his ninety-first year.

Laws have recently been passed in Maryland legalizing the practical study of anatomy and providing for this purpose such bodies as otherwise would be buried at the public expense.

The Richmond County (N. Y.) Medical Society has voted to repudiate the code of the State Society. The delegation to be sent from the New York County Society is said to be pledged to support the new code.

By very strong resolutions the late meeting of the American Public Health Association endorsed the National Board of Health and exhorted all to use their influence to remove the obstacles to its effective action.

It is officially announced that the cholera which has raged in Japan since last April as an epidemic, is now subdued. Three thousand six hundred and nineteen cures and two thousand three hundred and twenty-eight deaths are reported, a mortality of 64.32 per cent.

The New York *Medical Record* says that "two New York neurologists were recently seen to shake hands in a cordial manner. It is thought that a third neurological society will now be unnecessary." An illustration of a city of brotherly love.

On November 2, Dr. J. Marion Sims and son gave a reception in the Brunswick of New York city to the venerable Dr. S. D. Gross. A large number of medical men joined in the brilliant occasion to honor these leaders in medical thought.

The total claim of President Garfield's physicians, amounting to more than $1,000 per day, the *Medical Surgical Reporter* regards as staggering to it, much as it desires to support the profession in its just rights.

One of the physicians of the Blockley Hospital, Philadelphia, has been dropped by the Board for the sole reason that he is a man, and they desire a woman to take his place. He had long served the hospital with skill and fidelity.

A London undertaker, in a circular addressed to medical men, offered commissions to them for such business as they would send him. "Get thee behind me, Satan," the doctors are said to have replied.

The wife of Dr. E. C. Seguin, of New York, in a fit of insanity, shot her three little children and then herself. All were dead when discovered. No adequate reason is known for the act. The doctor has the sympathy of the profession in his dreadful affliction.

William Wood & Co. announce that after the first of January the *American Journal of Obstetrics and Diseases of Children* will be issued monthly instead of quarterly. The same style of publication will be retained and the price will be $6 per year, or, if paid in advance, $5.

In the American Homœopathic Pharmacopœia are substances obtained from morbid products of the animal body, their names indicating their origin: syphilinum, buboinum, gonorrhin, leucorrhin, glanderin, anthracin, psorin, etc. The last edition of this work was issued in 1882.

Dr. Geo. Johnson, of London, believes that a saturated solution of picric acid furnishes a test for albumin free from fallacy. It may be carried dry in the pocket and a small crystal added to the suspected liquid, when it will at once cause obvious cloudiness if albumin be present.

Dr. Morrell Makenzie in a lecture delivered while in this country, said: "I hold that croup and diphtheria are quite identical, and that it will not be long before we shall have exhaustive works upon diphtheria which will consider it and croup as identical diseases."

Dr. L. Duncan Bulkley's lectures upon skin diseases are given as usual in the amphitheatre of the New York Hospital, New York City. One lecture is given each Wednesday afternoon at 2:30 for twenty consecutive weeks. The lectures are free to all physicians and students who desire to attend.

A California physician has discovered a parasite producing the disease called love madness. He has isolated the germ and inoculated several persons. In every case the characteristic phenomena of the disease were speedily manifested. So says the New Orleans *Medical Journal.*

Dr. J. S. Billings never appeared to better advantage than when at the late meeting of the American Public Health Association, he caused the tabling of action which would have practically favored the making of a law which would make it compulsory upon physicians to reveal the secrets of their patients. He apprehends that the Association would not in this manner win the support of the profession.

Harvard University has formally decided to have a standing committee of two members of the corporation, with whom the members of the Medical Faculty may confer on any matters pertaining to medical education. Further, they will not act upon any question affecting the medical department without first giving the medical faculty a chance to express its views.

For the relief of winter eczema, a troublesome itching affection, Dr. Squibb's Ephemeris recommends the following. Take of tannic acid, forty grains, of glycerine and alcohol each half a fluidounce, water to make four ounces. This solution is applied to the itching surfaces by means of a small sponge or rag, morning and evening.

"Going snacks, or dividing spoils," is said to have originated thus: During the London plague there lived a noted body snatcher named Snacks. His business so increased that he was forced to get aid. He offered a share of the profits to such as joined him. Hence those who joined him were said to go in with Snacks. Whence the modern phrase.

The *Boston Medical Journal* thinks that the National Board of Health requires great changes in its organization before it will become sufficiently acceptable to the Nation to be perpetuated. It says, that the medical profession and health boards about the East, at least, are dissatisfied with it; also the president, the treasury officials, Congress, etc.

Dr. H. F. Formad, of Philadelphia, discredits the results of Koch's inoculation experiments, because the successful ones were made only upon animals who have such a strong predisposition to tuberculosis that they contract it from inoculation with non-specific substances. The others claimed to be successful he regards as "pseudo-tuberculosis."

Dr. Morrell Makenzie lays great stress upon the following method of preventing hæmorrhage after excision of the tonsils. He uses the following mixture: Three hundred and sixty grains of tannic acid and one hundred and twenty grains of gallic acid to one ounce of water. A quarter of a teaspoonful of this after an operation, repeated as required, is sufficient. The gallic acid prevents the solution of the tannic acid.

To expel a tape worm from a man, a practitioner in Ceylon prescribed one and one-half ounces of the etherial extract of male fern and three drachms of powdered kamala. It was to be taken in divided doses at an interval of three or four hours. Taking one dose at bed time and another at 2 P. M. he expelled the worm and died before morning. The etherial extract is usually given in doses of from half a drachm to two drachms. The authority for the large doses was Naphey's *Medical Therapeutics.*

The Detroit *Evening News* of November 13th contains an announcement that Dr. E. C. Franklin, Professor of Surgery in the University of Michigan, will be regularly in attendance for consultations and special operations at the Surgical Department of Drs. K. & K., United States Medical and Surgical Association, corner of Michigan avenue and Griswold street, Detroit. Thus it seems that the people of Michigan pay a professor of surgery to use his position to help support a medical advertising establishment of a purely mercenary type.

Dr. P. P. Gilmartin, of Detroit, one of the experts in the late malpractice suit against Dr. Donald Maclean, of Ann Arbor, has begun a suit for $50,000 damages for statements made in a daily paper owned by Drs. Maclean and Frothingham, respecting his testimony during the trial. Statements quite as damaging were made against the other experts on the same side as Dr. Gilmartin.

From the daily papers we learn that another disturbance has occurred in the University. One of the students who has been a Congregational minister, claims that Dr. Frothingham, in his public lectures, went out of his way to abuse ministers and the Christian religion. The matter at last accounts was in the hands of the President of the University. The Medical Department of Michigan University is getting an unenviable notoriety lately for the bitter personal quarrels of some of its members with outsiders.

An exchange tells the following: "A visiting committee to a hospital came to the second bed from the door of the ward, 'Well, my man, how are you getting on? Can we do anything to make you more comfortable?' The patient expressed a wish to exchange beds with the one next to the door, and on being pressed for the reason, said, 'That man is my bitterest enemy. The doctors always come in at that door, and they put the same thermometer in my mouth that has just been in that man's stern.' "

Koumis may be made at home for about fifteen cents per quart. Fill a quart champage bottle up to the neck with pure milk; add two tablespoonsful of white sugar, after dissolving the same in a little hot water over the fire; add also a quarter of a two-cent cake of compressed yeast. Then tie the cork of the bottle securely and shake the mixture well. Place in a room, the temperature at eighty to ninety degrees Fahr., for six hours and finally in the ice-box over night.

The *Medical Record* visiting list for 1883 is received. It is as handsome as on its first issue. It is substantially bound in leather, without any padding of leaves of advertisements. It is capacious enough for thirty patients per week. It contains the usual variety of notes of doses, of medicines, hypodermic, endermic, oral, anal, or vaginal, weights and measures, etc. Respecting all this, we may remark that they are briefer than in some pocket records. For ourselves, we could wish they were entirely dispensed with. Altogether we think that this book will meet the wants of any general practitioner. It is certainly concise, compact and handsome. For sale by John Willyoung, Detroit, Mich.

Dr. Brunton, of *The Practitioner*, makes a poultice thus: Have a flannel bag made, 12 by 8 inches, is convenient size. This is closed at three edges, the fourth having a flap. Four tapes are attached to the corners. Besides, a strip of flannel is prepared long enough to be wrapped once or twice around the bag. The bag and the flannel and a bowl are to be thoroughly heated. The poultice is made of crushed linseed meal, and should be of rather thin consistency. It is poured into the bag, the flap turned down and fastened and the warm flannel roller wrapped about the whole. In this way a poultice may be applied boiling hot to the skin. The heat may be retained better by applying over the whole a layer of cotton wool or oiled silk. Such a poultice will relieve where many of the common kind have failed.

Walsh's Call Book and Tablet for 1883 is out, ready for the needs of its many friends. If possible, it is issued in handsomer shape than ever before. It has the same items of practical interest that it has uniformly given. One excellent feature is that it is always good until entirely used up. Thus, if one begins to use it in the middle instead of the first of the month there is no lost space. The tablet is convenient to make a record of engagements upon, and such other notes as have but a passing interest. Handsomely bound in Russia leather it is sent post-paid to any address for $1.50. Address Ralph Walsh, M. D., Washington, D. C.

Lindsay & Blakiston have issued for the thirty-second year their visiting list. The number before us has among its new features a new table of poisons and their antidotes, the French system of weights and measures, tables showing the relation of our present system of weights and measures to the metric system and giving the doses in each. We fancy that most will purchase this list because of the convenience it affords of making an accurate record of the business of each day, rather than for the information it may give respecting any subject. This is bound in the same excellent manner as in former years and is for sale at the same prices by Mr. John MacFarlane, Detroit.

The board of health of Ontario, Canada, issue their reports upon colored maps of the province. Dividing each province into ten districts, the relative prevalence of six common affections is given in a column elsewhere on the map. We suppose that there is some reason why they have thus divided up the province and some reason why they have adopted the colored map method of teaching the people respecting the same. But at this moment we do not recall any sufficient reason for the increased expense. It is very plain and instructive. It is issued regularly by the secretary of the board.

From the Buffalo *Medical Journal* we learn that a circular has been sent by the secretary of the New York State Medical

Society, asking each doctor to notify the secretary by postal card whether he personally approves of the new code. He hopes in this manner to formulate the prevailing sentiment of the profession of that state. The journal from which we quote is in doubt as to the reason for the official sending out of such a circular. It does not see any good in it.

Puscher, a German chemist (*Boston Jour. Chem.*), reports great success in using glycerine with glue. It is claimed that the addition of the glycerine prevents the liability to breaking, tearing or springing so common when simple glue is used. He used this glue for polishing and mixing wax with glycerine as an underground for laying on aniline red. A paste made of starch, glycerine and gypsum will maintain its plasticity and adhesiveness longer than any other cement, and therefore recommends itself for cementing chemical instruments and apparatus used by pharmacists.

Dr. F. H. Hamilton has presented his bill for services rendered to the late President Garfield. Being called upon to "describe fully the services rendered," he says: "The sole item which I have to present to your board, as the basis of my claim, is my long attendance upon the late president as a consulting surgeon, with its accompanying responsibilities, which God forbid I shall ever again be called upon to bear." He also protests against the claim of one of the physicians to receive at least twice as much as any other of the attending physicians.

The *Virginia Medical Monthly* thinks that the board of trustees of the Medical College of Virginia should be changed. Among the reasons for this view, it gives the following: "It has lately been stated in a city newspaper that one of the professors has claimed to have enough personal influence with members of the old board, either by family relationships or long-standing friendships, to control, in a great measure, its action regarding most questions that might come before it. This is a dangerous power to yield to any one man. If such power rests in the hands of one professor, ought not the old board to be reorganized?" There are plenty of medical colleges existing on the same basis as is here objected to. What can be done about it?

In a late editorial, we made the following statement: "It would save much trouble and great injustice if every gentleman whose name is appended to certificates of copyrighted medicines would signify whether it is placed there of his own free will." The first response to this comes from the *Southern Clinic*. It says that its endorsement of "Bromidia" was freely given. It also defends its endorsement of a copyrighted medicine. Who votes next? It will be remembered that the endorsement voluntarily of a copyrighted medicine, etc., exhibits the endorser as a repudiator of the rules of professional life established by the representative bodies of the entire English speaking medical profession. *Southern Clinic* glories in taking its position outside of the written ethics of the medical profession of the United States and Great Britain. We regret this, but must bend to the stern logic of facts. Perhaps the time has come for the abrogation of these ethics. If examination proves that the majority of the medical profession think as the *Southern Clinic*, our course is clear. If the reverse should prove true our course will also be plain. We hope the agitation will go on until the question is fully and fairly decided.

Dr. Carl Seiler, of Philadelphia, as will be seen by his letter in a previous page, withdraws his name from the endorsement of "Bromidia," etc. His position is no longer doubtful, as he has taken his stand with the written ethics of the medical profession. Others are still to be heard from.

Editor's Book Table.

Cornil on Syphilis.*

The work before us is a translation in which the translators have added about one-third to the bulk of the work. It is not a complete treatise upon syphilis. It especially dwells upon the anatomical characters of syphilis. Thus it gives the histological evolution of the various lesions of this disease from the initial chancre to the mucous patch, the superficial and deep cutaneous syphilides, the osseous and visceral affections. In addition to the account of the general pathological anatomy of syphilis, the author has added its essential clinical points. As an illustration of his method the author cites a papule. He studies first its complete anatomy, then in detail all the changes that the epiderm, rete mucosum, papillæ, derm, and vessels undergo. Having thus learned the changes going on underneath the epidermis in the different layers of the skin the observer will cease to regard the eruption simply as a pimple limited in a certain way by a colored surface.

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*SYPHILIS, BY V. CORNIL, PROFESSOR OF THE Faculty of Medicine of Paris. Translated with notes and additions by Dr. J. H. C. Simes, and Dr. J. W. White. With eighty-four illustrations. Philadelphia: Henry C. Lea's Son & Co. 1882. Cloth, pp. 461. For sale by John Willyoung, Detroit.

The theory of syphilis which the author believes worthy of most consideration he gives thus: "The infecting body in syphilis, as far as we have yet been able to isolate it, is a degraded or diseased cell, resembling a white blood corpuscle but much smaller and corresponding to the bioplastic disease germ of Beale. It is a particle of protoplasm which has undergone degeneration, and has acquired the property of proliferation, and of impressing its own peculiarities upon germinal matter wherever it comes in contact with it. This property is only what is seen and admitted in the case of pus cells, in the transformation of embryonal cells into epithelium, and is but an instance of the unexplained but well recognized influence which all cells, and especially diseased cells have upon those immediately adjoining them. The cells of syphilis therefore affect the white blood corpuscles and lymph cells, which they contaminate, and cause to take on rapid growth, arresting the former in their development into red blood cells and producing the so-called syphilitic anæmia.

These cells are found in every instance, and without exception at the point of syphilitic infection and their proliferation and accumulation constitute the induration of the infecting chancre. The characteristic hardness of this sore is due to the crowding together of these cells; its dryness to their involvement of the walls of the vessels, preventing transudation of serum; its abrupt limitation to the absence of any true inflammatory exudation, shading off into the neighboring tissues; its superficial scaliness, abrasion, or ulceration to the degree of its interference by blood pressure with the blood supply to the epidermic layer of the skin.

The time between the reception of the poison and the development of the initial lesion, represents the time occupied in the proliferation of these cells at the point of deposit.

The period between the appearance of the sore and the outbreak of constitutional symptoms, represents the slow passage of these diseased cells through the lymphatic channels and glands in which, by their multiplication, they give rise to glandular swellings and induration.

Having entered the circulation through the lymphatics they first affect the walls of the capillaries because here the blood current is slowest. They obstruct the circulation, and by their mechanical relations, press upon the terminal nerve filaments, causing the roseola and insensitiveness of the skin. In the papillæ the circulation is still further retarded and the proliferation of cells increased. Here the syphilitic cells escape into the substance of the papillæ and multiply. As the vessels are more and more occluded we have an accumulation of cells until little hard tumors are produced which are apparent on the surface. Various degrees of pressure produce in order the papule, the papulo-squamous, the ulcerative, the pustular syphilides.

During this period the channels have been subject to constant irritation. This irritation has a tendency to produce an exudation of a fibrous material which tends to damage and obstruct them. These lymphatic obstructions constitute the tertiary symptoms. They consist in the formation of small tumors, gummy, or of the death of tissues, necrosis and ulceration due to the accumulation at these points of the normal nutritive elements which should have been taken up by the lymphatics and restored to the general circulation. These accumulations contain no element that is distinctive or which differs from those found in the lymph spaces. The value of mercury in relieving the early symptoms of syphilis is intelligible on this theory. It produces a fatty metamorphosis of the syphilitic material and so relieves the obstructions to circulation, etc. The value of iodide of potash in the latter stages of the disease is also apparent.

Thus it will be seen that the author discredits the existence of a virus, or at least does not think the assumption of a virus needful to explain the syphilitic phenomena. This theory will be at once recognized as that of Dr. F. N. Otis, of New York.

As to the material basis of syphilis all is yet theory. Practically mercury, by inducing fatty degeneration of the accumulated cells of the syphilitic lesions, is the remedy for the cure of syphilis. Small doses only are needful to produce this effect. The whole volume is worthy of careful study by all. Its anatomical researches are not found in other works on this subject, and their study is helpful in the extreme.

The additions by the editors are almost equal to a new work. The publishers have issued the volume with their usual good taste.

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The Pharmacopœia of the United States, Sixth Decennial Revision.*

This volume is now before us. Unquestionably there has been a vast amount of excellent work expended upon it. No doubt there has been some sharp figuring respecting its publication, no doubt its price is greater than it should be. It seems clear that its present publishers are certain to make more from it than other competitors would have done had their lower bids been considered. But in spite of all this it is an excellent work, the best of the kind that America has ever had. The arrangement of articles is strictly alphabetical, so that any special one can be at once referred to without consulting the index. The crude drugs are more carefully defined. The definition of each drug is followed by a description giving the dimensions of the drug its external characteristics, odor, taste, etc. The more common adulterations are pointed out and the characters shown by which they may be distinguished. Respecting chemicals, the manufacturing processes have been omitted in all cases in which they were not liable to variation. Working processes are given for such chemicals as were likely to vary with the method of preparation. All chemicals of definite composition are accompanied by their chemical formulæ, old and new, also atomic weights, a minute description giving physical characteristics, tests of purity. A process for the assay of each is also appended.

Certain new principles of nomenclature are adopted.

Parts by weight are substituted for the previous weights and measures. As a rule there has been no change made in the doses. The fluid extracts differ in strength about five per cent. from the extracts made by the old processes. A large number of new drugs and preparation have been added and about as many dropped. These are arranged in separate tables. The names of a considerable number of preparations have been altered, these are also placed in one list. A large number of tables, very useful to the pharmacist are added to the pharmacopœia proper.

The publishers tell us that this "book constitutes the lawful text-book for the physician and pharmacist for the next ten years, or until the next edition to be authorized by the National convention of 1890 shall have made its appearance. The laws of the several states and the United States recognize its requirement of strength and purity of drugs and chemicals. Custom house officers, public analysts and courts of law make it the basis of their judgment. Thus, aside from its scientific or practical importance, it has a legal standing that few other publications have.

Of course the pharmacopœia will have to be explained. That which relates to therapeutics will be explained by Dr. R. T. Edes, and published by the Woods, in a 300 paged volume. That which relates to the pharmacist will be explained by Drs. Oldberg and Wall in a volume of 700 pages to be issued by the Woods. Both of these companion volumes are to be issued in the same general style as the pharmacopœia. They really are to the present pharmacopœia what Wood's Dispensatory was to former editions. The whole matter has been transferred to New York. Of course all of these books must have great sale. It strikes us that the price of the pharmacopœia is far more than it should be for the sale that it must have.

It is issued in good style and will find its way into the libraries of all pharmacists and some physicians.

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Heitzmann's Microscopical Morphology of the Animal Body in Health and Disease.*

The writer of this work is well known to the profession by his writings upon microscopical subjects, both in Vienna and in New York, as they have appeared in the medical journals and society reports. In the work before us these have been gathered up and issued in one volume. Also, he has gathered up much of the writings of his most active pupils and some of his fellow laborers in the same field. Hence, the general character of the work is uneven, as to authorship, and relative proportion of the several subjects treated.

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*THE PHARMACOPŒIA OF THE UNITED STATES OF America, Sixth Decennial Revision, by authority of the national convention for revising the Pharmacopœia, held in Washington. 1880. New York: William Wood & Co. Cloth, pp. 488 Price $4.00. For sale by John Willyoung, Detroit.

*MICROSCOPICAL MORPHOLOGY OF THE ANIMAL Body, in Health and Disease. By C. Heitzmann, M. D. With 380 original engravings. New York: J. H. Vail & Co. 1883. Paper pp. 849. For sale by John MacFarlane, Detroit.

Among his most striking claims is, that he has demonstrated that the cell theory is a delusion. In place of it he says that he has demonstrated that in the cell there are lines of living protoplasmic matter, and between these network of lines, the framework of the same. In short, the cell itself is further divisible into protoplasmic matter and structural matter, both capable of being demonstrated with the microscope. He further claims that the same protoplasmic lines are present throughout all interstitial substances hitherto regarded as lifeless.

That he has been a tireless worker in this pecuniarily unremunerative field in this country, he ascribes to the generous support of his laboratory in New York, and to the princely aid of a wealthy person who will remain incognito The three hundred and eighty engravings were made by himself and hence are such as he desires. Whether all his views are such as will stand the test of time, is a matter for the future to determine. But there is not a doubt that his energetic, enthusiastic study of this class of work has infected very many others in the profession to active work in this field. We wish it would influence the rich men to utilize some of their wealth in supporting institutions in which such workers could have all the needs for their work. Of course this will come in time, but we can hope the time is near for its partial realization.

Applying his views to the theory of tuberculosis, he claims and has done so for many years, that there is a want of living matter in the individuals predisposed to this affection. He finds that in the blood or other tissues taken from such and microscopically examined, the lines of protoplasm are smaller and the meshes larger. To this absence of living matter he traces all the phenomena of the disease. Of course this living matter cannot be increased. Hence all that can be done is to follow the indications of treatment laid down by Virchow, namely: "The removal of the disposition and the avoidance of all obnoxious irritation." Referring to the several views respecting the parasitic origin of tuberculosis, he says: "Tuberculosis seems to be a regular witches' caldron for the brewing of absurd theories." "A simple wound is sufficient to render a rabbit, a guinea pig, a dog, etc., tuberculous, if these animals are kept in cages and poorly fed. Even a lion will die of tuberculosis under these circumstances. On the contrary, none of these animals will become tuberculous if left in freedom and simply allowed to enjoy fresh air, proper food, and to live in a climate suitable for their organic organizations."

The question, what is tubercle? he answers thus:

"Tubercle for the cellular pathologist is a tissue composed of proliferated and divided cells; with us it is bioplasson freed from basis substance, with a scanty new formation of living matter. Tubercle, furthermore, is a tissue which is connected with the mother tissue, and in which all elements are a living union, established by the connecting filaments."

Tubercle is composed mostly of small elements, as there are only small centres of living matter, viz.: small nuclei and nucleoli. Tubercle is avascular; thus the production of tubercular tissue is without the new formation of blood vessels.

Hence he defines "tubercle as an inflammatory new formation, a tissue arising from an inflammation, with a scanty new formation of living matter, and without any new formation of blood-vessels."

His theory applied to the inflammatory process thus explains the nature of the changes going on. "The changes which occur in the inflammatory process consist, first in a dissolution or liquefaction of the basis substance, and secondly, in an increased production of the living matter of its own kind." So on through all the various morbid processes going on in the animal body, the same theory of the organization of matter serves as the thread leading through the labyrinth of changes taking place.

As a whole the work will interest every practicing physician who desires to understand the changes whose outward phenomena he is constantly called upon to observe. It does not follow that all will accept the author's peculiar views, but their suggestiveness will bring into clearer light the views he may think demonstrated. Then as the illustrations are all new and of a superior character they will interest and instruct. Perhaps, too, some will imbibe the author's enthusiasm in this sort of study and so be led to investigate for themselves. This latter will perhaps be the greatest service which the author can render to the profession.

The paper and press work are superior in their character.

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Beale on Slight Ailments—Second Edition.*

This edition is published simultaneously in London and Philadelphia, by special arrangement with the author. Hence it contains the author's latest views.

Among the slight ailments discussed are the disorders of the surface of the tongue, of the appetite, of indigestion, of constipation, of diarrhœa, of intestinal worms, of vertigo, of biliousness, of neuralgia, of the feverish and inflammatory state, and common forms of slight inflammation. To very many physicians there is a great temptation to slight the ailments that have no mortal danger in them, or, at least, not immediately. And yet, as Dr. Beale clearly shows, from such ailments every practitioner derives most of his income. As they are generally serious to the patient, they are worthy of the most careful attention. Then, too, they call for the greatest possible amount of knowledge in all directions and a very considerable skill. We can cordially commend the study of this book to all. None will be so wise that the reading of this will not suggest something important, if not new, Then, it is written in a very attractive style, pleasant to study and read during leisure hours. We make a few abstracts to more clearly exhibit the author's scope and style. Speaking of the importance of tact in dealing with patients, he says:

"On more than one occasion I have studied the well-turned phrases and persuasive sentences by which a popular prescriber, brimful of tact, managed to bring conviction to the minds of people of intelligence, and at the same time impress them with his profound knowledge and intelligence, though all the time he was writing nonsense, and probably knew that he was doing so. Men high among the most intelligent and most learned, nay, men who have been looked up to as men of the world, have often been humbugged in matters medical, and even profound lawyers have failed to distinguish medical sense from medical nonsense, and mere sham science from real scientific knowledge. Those who are always gauging the value of evidence, and devoting themselves to the extraction of truth, seem to be especially susceptible to medical and scientific imposition."

Concerning the nature of materies morbi of contagious diseases, he calls attention to the fact that bacteria are found with every plant and every animal in every stage of their existence. He does not think it proved that some other bacterium enters the body and constitutes the cause of disease. Nor does he think it proved that under certain conditions the harmless bacteria become poisonous and so the source of disease. In short, he has not accepted the germ theories of disease so prevalent.

In discussing the nature of intemperate habits, he calls attention to a peculiar phenomena. One who has been a drunkard reforms, and often hates alcohol more than he loved it. Before a sinner, he now becomes an aggressive saint. He expresses the greatest indignation against all who make, deal in, or use in any manner, this drug. He, with the small minority like him, would put all others in the same straight-jacket which was needful to restrain his own ungovernable propensities.

In his account of the use of pepsin for the relief of difficult digestion, he calls attention to the proper methods of manufacture and properties of this substance. He makes a careful comparison between the hog pepsin and the so-called ingluvin and ostrich pepsin. He found that, placed under the same conditions, one-half a grain of the pig pepsin digested fifty grains of coagulated albumen, while ten grains of the ostrich pepsin or ten grains of the ingluvin failed to at all effect the digestion of the same amount of albumen.

The relation of constipation to grumbling and to so-called criticism he points out. He says: "Many a severe article would never have seen the light if the glands of the critic's large bowel had been in good order at the time." This troublesome ailment has its advantages. It brings profit to editors, proprietors, and that important section of the civilized community which delights in finding fault, and flourishes according to the skill it displays in reviling. Any of you who desire to excel in this department of literature, cannot do better than to cultivate indigestion and imperfect action of the bowels, and a condition called biliousness. A constipated bilious dyspeptic is the sort of person soon to become a first-class critic, and his articles will command high remuneration, and be read by every one dissatisfied with his environment."

Of mineral waters at the several springs, he says: "Those who drink good water in London, and live according to reason, may work hard and enjoy all the year round the advantages which some go so far, and at great expense and inconvenience, to try to find during what they call their holiday."

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*On Slight Ailments, Their Treatment and Nature. By Lionel S. Beale, M. D., F. R. S. Second edition, enlarged and illustrated. Philadelphia: P. Blakiston, Son & Co. 1882. For sale by John MacFarlane, Detroit. Cloth, price $1.25. Pp. 283.

Concerning the help to be had from old practitioners, he says: "Let me advise you never to neglect an opportunity of picking up from old practitioners any receipts for medicines they are willing to give you, and not to despise their teaching, especially as regards the treatment of many slight ailments, difficult to manage and to cure. Do not receive with contemptuous indifference their suggestions for the treatment of functional disorders, the exact nature of which they may be unable to adequately explain. He believes that Dr. Beard's claim for increase in nervousness in the United States can only apply to a very small fraction of the population of some of the large cities. "I have no doubt that the American nation will survive and increase in numbers and vigor, the dethronement of pork notwithstanding."

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Longstreth on Rheumatism, Gout and Allied Disorders.*

This constitutes the October issue of the Wood's Medical Library, having been prepared exclusively for it. As might be expected, it does not enlighten us as to the real nature of rheumatism. It gives the various theories that from time to time have prevailed in the profession, the humoral, the lactic acid, and the parasitic, etc. But of course they add nothing to our definite knowledge. As to the conditions under which attacks of rheumatism take place the author makes an excellent statement. Respecting the treatment of this disorder he thinks that Striker's conclusions have been confirmed by clinical experience. Thus he says: "Salicylic acid appears to be a rapid and radical remedy in recent cases of genuine acute articular rheumatism of the joints. It is not injurious to the human organism when administered in doses varying from seven to fifteen grains every hour. It can be given in these doses longer to young and strong individuals than to the old and feeble. In the latter it produces toxic symptoms more readily than in the former. The toxic symptoms vary in degree. Those most commonly met with are noises in the ears, difficulty in hearing, and diaphoresis; when these occur the administration of the medicine should be discontinued. If salicylic acid be found to fully answer the expectations entained regarding it, the internal administration of a certain quantity may be expected to prevent the occurrence of fresh attacks in hitherto unaffected joints, and also secondary inflammation of serous membranes especially the endocardium. To prevent relapse the medicine must be continued in smaller doses for some days after the termination of the main treatment. Salicylic acid is of doubtful utility in chronic articular rheumatism. It is not likely to be of use in gonorrhœal rheumatism, or in the polyarthritis attending septicæmia." He does not think there is any difference between the effect of this acid and that of its soda salt. The use of salicylic acid or any of its salts or salicine is based upon the germ theory of the disease, just as the alkaline treatment was based upon the lactic acid theory of rheumatism. Salicin affects the heart less unfavorably than salicylic acid and hence is indicated in the treatment of cases of rheumatism in presence of disease of the heart.

Of the unfavorable action of salicylic acid upon the heart he says he has noticed that, "in these instances of depression there is a feebleness in the apex beat as felt by the hand, and an absence of the tone or volume of the sounds as heard by the ear, and a general lagging of the contractions. Oftentimes the patient complains of a depression or sense of sinking before any depression of the heart's action can be detected by the observer."

As to the action of salicylic acid, Kœhler found that it produced the same effects as the section of the pneumogastric nerves of the spinal cord, viz., lessening of the blood pressure and a decrease in the frequency of the pulse. The respiratory action also diminished.

Chabert's experiments showed that the salicylate acts first on the brain and medulla, the organs of sensibility and motility, then on the cord and the reflex phenomena; next on the movements of the heart and muscular contractility.

Respecting the bearing of these facts upon the nature of rheumatism, the author confesses that they do not greatly help us. As to the germ theory, he thinks that modern observers differ mainly from the old theologians in that the devil which they supposed caused the disease is by the germ theorists reduced to such minute dimensions as to require a microscope in order to be detected.

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*RHEUMATISM, GOUT AND SOME ALLIED DISORDERS. By Morris Longstreth, M. D. New York: William Wood & Co. 1882. Sold only by subscription. Twelve volumes for $15.

While admitting that minute organisms are found in the human body in rheumatism, he thinks that evidence seems to indicate that they are quite likely to act as scavengers, removing the poisonous and waste materials formed by the disease. He regards it as more than likely that rheumatism is a misdirection given our normal functions by agents other than minute organisms. Disease he regards as perverted function, and does not think that medicine acts as a ferret to hunt up and destroy minute organisms. Rather he regards it as modifying formative and retrograde processes of nutrition according to physiological methods. Hence he looks upon salicylic acid as clinically relieving rheumatism by causing a cessation of the rheumatic process by controlling the misdirected process of nutrition. Whether it acts upon the gray matter of the central nervous system, on the peripheral fibres, or the intramuscular ganglia of the heart, or upon all of these parts to alter the blood supply, we may not now say.

The work is well worth a place in the medical library of every practitioner.

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Salter on Asthma.*

This is the second edition of a standard work. It adds much fresh matter to the former one. Nearly two hundred new cases are tabulated, making in all two hundred and twenty-three from which he draws his conclusions. Thus the work has a sound clinical basis from which to deduce its conclusions.

Respecting the pathology of asthma he tries to establish the following propositions: 1. Asthma is essentially a nervous disease, its essential pathological condition being in the nervous system. 2. The phenomena of asthma—the distressing sensation and the demand for extraordinary respiratory efforts—immediately depend upon a spastic contraction of the fibre cells of organic or unstriped muscle which minute anatomy has demonstrated to exist in the bronchial tubes. 3. These phenomena are those of reflex action. 4. The extent to which the nervous system is involved differs very much in different cases, being in some cases restricted to the nervous system of the air passages themselves. 5. In a very large number of cases the pneumogastric nerve, both in its gastric and pulmonary branches, is the seat of the disease. 6. There is a class of cases in which the nervous circuit between the source of irritation and the seat of the resulting muscular phenomena involves other portions of the nervous system besides the pneumogastric. 7. There are other cases in which the source of irritation giving rise to the asthmatic paroxysm appears to be central in the brain; consequently in which the action, though excito-motory, is not reflex. 8. There is yet a class of cases in which the exciting cause of the paroxysms appears to be essentially humoral." The evidence adduced in support of these propositions is very strong and interesting. It will thus appear that the causation of asthma is quite complex. The portions relating to treatment are very interestingly told. Little that is absolutely new is given and yet he must be a very careless reader who does not pick up some new idea from the clinical illustrations given.

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King's Manual of Obstetrics.*

This is the latest of the disconnected series of obstetrical works now being issued by American authors. The writer says that it was prepared for his own students at Washington, D. C., and at Burlington, Vt. He desired to give them such a skeleton of the whole field of the obstetric science and art as would enable them to follow his lectures and undertake the study of the larger works of Leishman, Playfair, and Lusk. Indeed, he says he has drawn especially from these authors. He does not pretend to introduce any new facts or any new methods. The work bases its sole claim to professional attention upon its skeleton character. This character, the author thinks, may be of service to some older practitioners. Judged by his own standard, the work is a success. But respecting this standard there is ground for difference of opinion. It seems to us that a truer conception of obstetrics will be obtained from the first study of the larger works. Still, for such as prefer an outline work, the volume before us will serve an excellent purpose. The condensation is done with the practiced hand of an accomplished teacher. It is issued in a form at once convenient and tasty.

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*On Asthma, Its Pathology and Treatment. By Henry Hyde Salter, M. D., F. R. S. First American from the last English edition. New York: William Wood & Co. 1882. Cloth pp. 284. Sold only by subscription.

*A Manual of Obstetrics. By A. F. King, M D., with fifty-eight illustrations. Philadelphia: Henry C. Lea's Son & Co. 1882. Pp. 325. Cloth. For sale by John Willyoung, Detroit, Mich.

Fourth Edition of Wood's Therapeutics.[*]

As is well known this work makes the physiological action of remedies the principal point of discussion. As in the majority of cases the knowledge needful for a full exposition of the action of drugs from a physiological standpoint, does not exist, the author has been compelled to supplement his plan by the clinical method. Thus we have all of scientific and all of clinical study brought to bear upon the study of the principal articles of the materia medica. The thoroughness and popularity of the work is exhibited by the rapid sales of the several editions. The present edition brings each article up to the date of the latest physiological investigations relating to the action of drugs. All interested in the study of drugs by this method will be delighted with the aid furnished by the volume before us. One feature will commend it to careful students, viz.: the care with which all references are given. By these all desirous of so doing may readily consult the original authority. The style of issue is the same as in the former editions.

Draper's Practical Laboratory Course in Medical Chemistry.[†]

This is a very small work intended to give but a cursory view of the laboratory work needful for the study of medical chemistry. But perhaps this makes it all the better for beginners, especially as it was designed for the needs of medical students who expect to learn all the science and art of medicine in all its branches in two terms of four or five months each.

After describing the general processes of manipulation and the chemical divisions of substances he opens the study of poisons, first inorganic and then organic. Then he treats of water. Its properties and the means of detecting the most common impurities he states very well. Then follows a chapter upon the animal fluids including the urine. Lastly he shows how to study sediments and calculi. The whole is arranged in a very convenient form for one who desires to make any such studies and is entirely ignorant of practical chemistry.

The Spinal Nerves, by A. H. P. Leuf, M. D.[*]

This little work gives a condensed description of the anatomy of all the spinal nerves. It is accompanied by a diagram of the spinal nerves representing every branch worth remembering. Six charts of the nerves accompany the text. As the text treats of the nerves in the same order in which they appear upon the charts the latter serves as an index to the former. The arrangement of the names of the nerves facilitates their study and easy remembrance. It is specially designed for use in the dissecting room but it will be of service in any place in which the study of these nerves is carried on. We have been much pleased with the plan and details of this work. Students of this part of the nervous system will derive great aid from its pages.

Ockford's Hand Book of Homœopathic Practice.[†]

This work is a compilation from all homœopathic authorities of the established descriptions of the principal diseases and their treatment. It is intended as a substitute for the larger works treating of the same subjects. It strikes us that the larger works would prove more serviceable to any student desiring to master the peculiar beliefs of this sect. It is well issued by the publishers.

Briggs on the Antiseptic Treatment of Wounds.

This is a nineteen-page reprint from the *Nashville Medical Journal.* The author tries to show that the germ theory of wound infection is not established; that the antiseptic treatment of wounds is based on broad general principles; that antiseptic surgery embraces every condition or agent that tends to prevent putrefactive changes in wounds, or to remove or neutralize the effects of such changes when they have occurred; that all wounds are healed by reparative inflammation; that all wound accidents are the result, either directly or indirectly, of destructive inflammation; that the antiseptic treatment of wounds, properly considered, consists, first, of such means as will restrain inflammatory action within reparative bounds, and, second, of such means as will subdue excessive action and remove or neutralize the effects of destructive inflammation.

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[*] A Treatise on Therapeutics Comprising Materia Medica and Toxicology, with special reference to the application of the physiological action of drugs to clinical medicine. By H C. Wood, Jr., M. D. Fourth edition enlarged and revised. Philadelphia: J. B. Lippincott & Co. 1882. Cloth, $6.00. For sale by John MacFarlane, Detroit.

[†] Practical Laboratory Course in Medical Chemistry. By John C. Draper, M. D., LL D. New York: William Wood & Co. 1882. Cloth, pp. 71. For sale by John Willyoung, Detroit.

[*] The Spinal Nerves. By A. H. P. Leuf, M D. Published by F. B. O'Connor, Jr., Brooklyn, N. Y. Price, $1.00.

[†] A Hand Book of Homœopathc Practice. By George M. Ockford, M. D. Chicago: Duncan Brothers. 1881. Cloth. Pp. 435. Price, $3.

NEWMAN ON A SUCCESSFUL OVARIOTOMY IN 1866. A six page reprint from the New England Medical Monthly.

The author claims to have introduced into this operation at that early day the features of the pedicle by the galvano-cautery, an antiseptic dressing without the regulation ether spray, the introduction of drainage tube, the application of silver ligatures to separate vessels of pedicle and arteries which were left in the abdominal cavity.

NEWMAN ON THE TREATMENT OF STRUCTURE OF the Rectum by Electrolysis. A seven page reprint from the New England Medical Monthly.

The author reports three cases improved by the electrolysis. As stricture of the rectum may occur as the sequel of any inflammation in the tissues of the rectum and as no treatment has hitherto given any satisfaction the use of this remedy is worth a trial even if it should only relieve.

ANDERSON ON THE CITY OF MOBILE AS A WINTER RESORT.

This is a thirty-two page pamphlet giving all the advantages of a winter residence near the Gulf of Mexico. A variety of important information is given for the benefit of the traveler.

CONKLIN ON IMPACTED FRACTURE OF THE NECK of the Femur with inversion of the foot. This is an eight page reprint from the Columbus Medical Journal.

The interest of this paper turns upon the demonstration that a fracture of the neck of the femur can take place with inversion instead of eversion of the foot as is usually the case. He thinks that the anomalous position of the foot in this case depended upon the direction in which the fracturing force was applied and the position of the limb at the time of its application.

SHOEMAKER ON THE THERAPEUTIC ACTION OF Potassium Chlorate. This is a nineteen page reprint from the coming Transactions of the American Medical Association.

It is a condensed statement of our present knowledge of this subject. There are no new observations or experiments adduced.

HAMMOND ON THE DISEASE OF THE SCYTHIANS. A seventeen page reprint from the American Journal of Neurology and Psychiatry.

The author shows that the essential nature of this disease is a mental alienation by which the subjects of it dress and act like women, the aberration commencing in sexual impotence.

SHOEMAKER ON THE TREATMENT OF SYPHILIS, with Subcutaneous Sublimate Injections. A nineteen-page reprint from the advanced sheets of the Transactions of the American Medical Association.

It fairly presents both sides of the question of this form of treating this disease. We do not see that sufficiently good reasons are given for its general adoption.

SHOEMAKER ON THE OLEATES AND OLEOPALMATES in Skin Diseases. A sixteen-page reprint from the advance sheets of the Pennsylvania State Society Report.

It presents in an attractive form a resume of our present knowledge of these agents. That they are valuable preparations there can be no doubt. Nor is there any doubt that many of the preparations will come into general use as their virtues become known.

DANA ON SOME POINTS IN THE PHYSIOLOGY OF DIGESTION. A twelve-page reprint from the Boston Medical Journal.

By evidence adduced, the writer thinks he has shown that peptones are valuable more because they contain much nutriment than because they are very absorbable. Pancreatic extracts are of use to partially peptonize foods before use.

DANA ON THE DIGESTIVE POWER OF COMMERCIAL PEPSIN. An eleven-page reprint from the American Journal of Medical Sciences.

He shows that large doses of the so-called pure pepsins. The prescriber should know how much pure pepsin there is in the saccharated preparations. Acid should be given before and the pepsin after the meals.

LENT ON A HITHERTO UNDESCRIBED LESION OF the Knee-Joint A fifteen-page reprint from the Medical Gazette.

He says that it is impossible to give a name to this injury, and equally so to indicate its pathology. Nor does the paper throw any light upon the affection. It is all very shadowy evidently in the author's mind. More study upon the subject ere writing the paper would have been more satisfactory to his readers.

GASTON ON THE USE OF THE ECRASEUR FOR CURING Deep Seated Fistula in Ano. An eight-page reprint from the American Journal of Medical Sciences.

The author makes a very temperate plea

for the usefulness of his method in certain cases. It is worthy of the attention of practical surgeons.

PRINCE ON IODOFORM IN SURGERY. A three-page reprint from the St. Louis Medical Journal.

He describes its application to open wounds, hypodermically, by bougies, etc.

ROHE ON THE ADMINISTRATION OF ANÆSTHETICS. An eighteen-page reprint from the Medical Chronicle.

After a fifteen years' experience, the author says, that the one thing he would destroy, if he had the power, is chloroform. This paper presents many useful directions respecting the details of the using of anæsthetics. While no anæsthetic can be said to be absolutely safe, ether, carefully administered, is very nearly so.

COGSHALL ON TUBERCULAR CONSUMPTION AS A Contagious and Parasitic Disease. A twelve-paged paper read before the American Public Health Association.

He very earnestly presents the view that the sputum of tuberculous patients is the source of the poison or germs which convey the disease to the healthy from the diseased. In short, he believes in the contagiousness of tuberculosis and the germ theory of its nature. To take care of the sputum is doubtless a cleanly thing and perhaps a protective thing.

MASON ON ALCOHOLIC ANÆSTHESIA. An eight-page reprint from the Journal of Inebriety.

It recalls the days previous to anæsthesia, when to a patient about to be operated upon was given large doses of alcohol with the effect of generally rendering him less sensible to pain of the knife. Besides this condition of anæsthesia is another due to long continued action of the alcohol on the nervous centres. While this form is limited in character, it is of comparatively long duration—weeks, or even months.

THE FIRST BIENNIAL REPORT OF THE MICHIGAN Free Eye and Ear Infirmary.

In addition to the formal report of the number and kind of cases treated during this period, we have given an account of a few interesting cases illustrating certain pathological states and the therapeutic or operative methods used to remove them. This puts some life into the otherwise dry bones. The whole report makes an excellent showing for the activity of the infirmary.

CORDELL ON THE CONTINUOUS INHALATION OF THE Vapors of Slacking lime in the treatment of Membranous Laryngitis.

In this four paged reprint from the Maryland Medical Journal we have a presentation of an old and effective manner of treating membranous croup. It takes little trouble and costs but little where unslacked lime is obtainable.

KEATING ON THE PRESENCE OF THE MICROCCUS IN the Blood of Malignant Measles; its Importance in Treatment. A seven page reprint from the Philadelphia Medical Times.

It reports the finding of the said parasite in the vesicles, pustules and blood. If the attack be very malignant great numbers of the germs will be found in the blood. In the worst cases the production of these germs is so great as to cause a stasis of blood in many parts and the resulting coagulation of the blood.· Alcohol given in large amounts seems to check the progress of these germs and so to favor recovery.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Action of Remedies.

SOME PECULIAR EFFECTS OF CINCHONIA.—Dr. J. G. Rogers (*American Journal of Insanity*, July, 1882) calls attention to the following effects of cinchonia:

An hour after the ingestion of twenty grains, more or less, is made manifest a decided disturbance of the sympathetic system, as shown by cardiac weakness and irregularity, and a general sense of muscular debility with tremor becomes quite marked; nausea is not infrequent. These effects may arise from any of the bark alkaloids, and are not peculiar. At the same time paresis of visual accommodation appears and progresses to such an extent as to be almost complete, in many instances, at the end of the second hour. At this stage even the emmetropic eye will require the aid of a number ten convex glass to properly distinguish objects at the normal near point. The paresis lasts eight or ten hours. It is not associated with any mydriatic effect in adults, but sometimes this condition is noticeable in children of delicate nervous organization.

With these phenomena are associated, primarily, slight mental excitation, a sense of heat and blood-fulness in the head and upper part of the body, and some flushing of the skin. Later, a relative pallor involves the entire surface, the mucous membrane of the eyes, nose, mouth and throat becomes very dry, and so continues for several hours. At the same time there is very decided obtusion of tactile sensibility. Stimulants, food and rest readily overcome the cardiac and muscular disturbance, but have no influence on the other conditions. The foregoing observations refer to effects upon adults. In young children, within an hour after administration, a most decided erythema suddenly appears, notably about the head, but involving the entire surface. This appearance is exactly as in the third day of scarlet fever, and, just as then, the skin can be legibly written upon with a blunt point. This state of cutaneous vaso-motor paresis is temporary, usually disappearing within two hours, and is followed by a paleness more noticeable than in the adult, which is prolonged for several hours.

The deduction from these observations is that cinchonia, in addition to its tonic and antiperiodic effects, exerts special influences on the nervous apparatus congate to those belonging to the alkaloid of belladonna, hyoscyamus and stramonium, and should be correspondingly useful in those conditions in which this class of agents is indicated.

Practically I have found it eminently serviceable in febrile conditions associated with cerebro-spinal congestion, and in the more sthenic types of acute mania. The ordinary sedative effects of the bark alkaloids have superadded to them most marked vaso-motor influences which result secondarily and permanently in an increase of tension and consecutive reduction of congestion.

QUININE AND SALICYLIC ACID—THEIR ACTION UPON THE EAR.—Kirchner (*Ber. Klin. Woch.*, *Edinburgh Med. Jour.*), from experiments on animals and observations on men, says:

His conclusions are that quinine and salicylic acid produce hyperæmia of the tympanum, which may go on even to hæmorrhage, and that the whole labyrinth is likewise involved in this hyperæmia, which is often so intense that if it continued any length of time it must necessarily injure the ultimate nerve fibres. The cause of this hyperæmia is referred to vaso-motor disturbances, which may produce in severe cases a paralysis of the vessels and an exudation in the various parts of the ear—the same conclusion which has been reached previously by Weber-Liel, Roosa and others.

Nervous Diseases.

THE SYMPTOMS OF SANITY AND THE DIAGNOSIS OF INSANITY.—Dr. Geo. M. Beard (*Medical News*, July 1, 1882), stated that the object of his paper was two-fold; first, to show what a sane man was. The normal retina, ear-drum, throat, and the normal condition of the parts of the body in general, have long been studied in order to enable us to know when disease attacks the body, but no one has studied the normal mind in such a way as to contrast it with an insane mind. The second object of his paper was to reconstruct the subject of insanity on the basis of evolution; to carry evolution into psychology. The law of evolution is the highest generalization the human mind has ever reached, and it is greater than gravity, and is revolutionizing the science of medicine. It originated, in its modern phase, in the brain of Herder, was developed by Goethe, and more recently still by Herbert Spencer, and Darwin, who has passed away. Dr. Beard said the symptoms of sanity were as follows: First, activity of the instinct of self-preservation; second, adaptation to environment; third, correspondence of character to age and station; fourth, rememberable consciousness. He who responds to all these tests is a sane man, no matter how sick he may be in body or mind. He who does not respond to these tests is an insane man, no matter how well he may be in body. Insanity is a disease in which mental responsibility is seriously impaired. There can be no insanity with perfect responsibility. The very essence of insanity is irresponsibility. Dr. Beard exhibited a diagram based upon evolution. It represented the most important nervous diseases in the form of a tree, each disease being a branch; one side being devoted to physical, the other to mental, diseases. On the mental side were trance, hypochondria, mental hysteria, hystero-epilepsy, and insanity. On the physical side were chorea, neuralgia, neurasthenia, physical hysteria, epilepsy, and paralysis, beginning at the bottom and going to the top of the tree. Dr. Beard said that when mental disease attacked a person the symptoms began from above downward. The symptoms of insanity appeared in the following order, the later acquisitions first disappearing and then the earlier. There is, first, a decline in the manners, that is, minor morals, and then more extensive moral decline; second, the power of originating thought; third, the power of acquiring thought; fourth, decline in memory of recent events; fifth, decline in the memory of old events. There can be no insanity without moral decline. When a worm gnaws at the roots of a tree it is the blossoms that first begin to fade. When insanity attacks a mind it is the minor morals that are first destroyed. When an insane man wishes to kill, the chances are twenty-five to one he will kill himself; next to himself he will kill some relative or friend whom he dearly loves, as a wife or child. The third temptation is to kill some public character, any one who happens to be prominently before the public and excites the emotional nature. When any person without a confederate kills or attempts to kill the President of the United States or the Queen of England, the presumption is, a thousand to one, that he is crazy. Dr. Beard then went on to give, by means of his four tests of sanity, the differential diagnosis between fanaticism and insanity; between genius and insanity; between vice and insanity.

TWELVE CASES OF BRAIN TUMOR; CLINICAL NOTES.—Dr. C. K. Mills (*Medical News*, July 1, 1882), gives the following:

The notes presented were on twelve cases of intra-cranial tumor in which the clinical examination and the autopsies had been made by Dr. Mills. They were arranged in tabular form, in one column giving a very much condensed clinical history and in another the gross post mortem appearances and the results of microscopical examination. The facts thus tabulated were then summarized and conclusions drawn.

Headache usually described as present, pain of considerable severity with exacerbations of great violence. In several instances the patients complained of the pain being greatest in the region of the head nearest the seat of the growth. Percussion of the head elicited or intensified pain in the cranial region beneath which the lesion was localized. Vomiting was a symptom in eight of the twelve cases. In a case of tumor of the cerebellum, so located as to cause irritation of the floor of the fourth ventricle, vomiting was persistent. In most of the cases the vomiting was ascribed to irritation of the nerves of the cerebral membrane, the observer agreeing with Ferrier with reference to this point. Vertigo was noticed in ten cases, most marked in two cases of cerebellar tumor. Dr. Mills believed that the general diagnosis of the existence of intra-cranial tumors could be made with greater certainty than that of any other serious encephalic disease.

Dr. Putnam inquired if the author of the paper distinguished sharply between choked disk and neuritis.

Dr. Rockwell mentioned a case of a patient who first suffered from hysterical attacks followed by epileptiform attacks. Headache was present from the beginning, and finally became excruciating in character. The symptoms were such as to lead him to the suspicion of brain tumor, but upon post mortem examination no such lesion was found, there being present only cloudiness of the arachnoid.

Dr. Mills considered it important in the diagnosis of brain tumors that their character be taken into consideration, that is, whether in their growth tissue was destroyed or the parts pushed aside; whether it was a destructive or pressure lesion.

Dr. Seguin expressed his pleasure of the views entertained by the author of the paper in regard to localization of brain tumors. Though pain was present in many cases, it had so happened that in most of the well-defined cases of sarcoma that had come under his observation there was no headache. In only one case of cerebral tumor had he observed choked disk. All of his cases of basal tumor had choked disks. In one case of sarcoma within the medulla oblongata, choked disk was present.

Dr. Mills, in reply to the first question asked, would say that, in his opinion, we have, according to the position and character of the tumor, choked disk, either from its mechanical cause, or from the seat of the lesion. He was inclined to favor the so-called lymph-space theory in regard to the production of choked disk.

Pathology.

THE RELATION OF GERMS TO INFLAMMATION.—Dr. J. B. Sanderson (*Brit. Med. Jour.*) gives, as expressing our actual knowledge of the above subject, the following:

(1) That the exudation of a normal inflammation is not infective; (2) that no organisms endowed with inflammation-producing (for which term the word phlogogenic may be conveniently substituted) functions exist in the atmosphere, or in the ordinary aqueous liquids with which our bodies come into contact; (3) that whenever an inflammation becomes infective, it owes that property to chemical change in the exudation liquid, of which the presence of microzymes is a necessary condition; (4) that the introduction into

the lymphatics, and eventually into the blood-stream, of microzymes which have been grown in septic exudations, is one of the mechanisms by which the seeds from which secondary or infective inflammations spring, are disseminated. Thus we attribute to our organisms two distinct functions, that of developing what may be called the phlogogenic infection, and that of conveying it to all parts of the body. What we deny is, that there exists at present any evidence that the infection in question actually originates in any other way than by the development of a septic process inside the organism. These several points I will endeavor to establish on the basis of experiment.

Physiology.

A Novel Function of the Spleen.—The *British Medical Journal* gives the following abstract of some recent researches upon the nature and functions of the spleen: It appears that normally (in cats and dogs, at least) the spleen alternately contracts and expands with great regularity, presenting systolic and diastolic phases about once a minute; and that it thus carries on its own circulation, independently of the general blood-pressure. With regard to the features of this action, we gather from Dr. Roy's paper (*Journal of Physiology*, vol. iii, No. 3) that this subsidiary circulation is comparatively sluggish, the ingress to the organ being very narrow, as is shown by the absence of pulse-waves from the volume-tracing, and by the slowness with which the volume diminishes when blood-pressure is brought down by compression of the aorta. In extent, the splenic contractions are subject to variations, not only according as the contractions are those of a more or less bulky organ, but also of the actual force of contraction; there does not, however, appear to be any constant relation between bulk and extent of contraction. The organ is also subject to slow spontaneous changes of volume, and similar changes can be excited by slightly altering the chemical constitution of the blood. That the rhythmic contractions are really due to the splenic muscular fibre, and are not merely of arterial mechanism, is shown by the analysis of curves in which the "Traube-Hering" rhythm has happened to supervene; the regularly irregular trace which appears under these circumstances, evidently results from the interference of two series of waves at different rhythms; the one series (that of the specific splenic contractions) having a slower rhythm than that of the other series (that of the arterial contractions), which gives rise to the Traube-Hering waves in the spleen, as in other parts and organs. The reaction of the splenic muscle to vaso-motor excitation, direct or indirect, is similar to that of arterial muscle. Excitation of the vaso-motor centre by dyspnœa, or by faradisation, causes strong splenic contraction simultaneous with the increased blood-pressure due to arterial constriction; excitation of the central end of the divided vagus or of the sciatic nerve causes contraction; or, if the organ happen to be in a contracted state, increase in the extent of the natural waves; and it is noteworthy that such centripetal excitation will cause splenic contraction after section of both splanchnics and vagi, thus indicating that there is some further efferent channel to the spleen. Peripheral excitation of the splanchnics or vagi, right or left, cause strong contraction; simple section of the splanchnics or vagi is not followed by expansion, nor is the rhythm altered, facts which go to prove that the splenic muscle is not maintained in tonic contraction, and that its rhythm, unlike the Traube-Hering rhythm, is not of central, but of local administration. With regard to the vagus, there appears to be some peculiar influence upon the heart's action proceeding along this channel from the spleen to the medulla, as shown by characteristic "vagus-heart" pulsations during the splenic systole—by section of the vagi, the character of the former is abolished, the latter remain unaltered. For details of the method, we refer our readers to Dr. Roy's paper; it will suffice to state here that the volume of the organ was measured and recorded from the displacement of fluid contained, with the organ in a rigid state.

This important accession to our physiological notions of the spleen will doubtless be extended, in Dr. Roy's promised communication of the effect on the splenic circulation of the injection of various chemical substances into the blood. The observations throw light into an obscure corner of physiology; and, while deprecating the building of flimsy pathology upon limited foundations, we may reasonably expect that these and further observations should help us to realize pathological aberration and therapeutic rectification of splenic function. But to judge of the influence on the economy of the physical function of the spleen, its blood-forming function, also, must be more precisely known than it is at present. We know, for instance, that we can, in man, modify, by electrical means, the bulk and muscular action of the spleen, but we are yet comparatively ignorant of alteration in the blood which we thereby increase or diminish. But whatever our wants may be in respect to information and speculations upon the relation of the spleen to the blood-corpuscles, the knowledge of its autonomous circulation is an important addition.

Practical Medicine.

RHINITIS HYPERTROPHICA—CHARACTERISTIC FEATURES AND TREATMENT.—Dr. H. F. Bosworth (*Medical Record*) gives these as follows:

The characteristic features of hypertrophy of the nasal mucous membrane, then, may be briefly summarized as follows:

1.—Increase of the covering epithelium, without desquamation.

2.—Increase of the adenoid layer and its capillaries, with stagnation of blood, together with a new formation of fibrous connective tissue replacing the adenoid layer.

3.—Increase of the racemose glands, both in the adenoid and submucous layer.

4.—Hypertrophy of the connective tissue between the enlarged veins in the submucous layer.

5.—In advanced stages of the hypertrophic process, an absence of lymph-corpuscles, they having evidently been transformed into connective tissue.

There are certain deductions which it seems to me may be clearly drawn from the study of these morbid changes. In the early stages of the disease we have to deal with merely an excessive secretion from the diseased membrane. As the later morbid conditions develop, we find two new features added, viz.: the connective-tissue hypertrophy, resulting in a permanent stenosis; and the dilatation of the venous sinuses, resulting in a liability to constantly recurring but temporary stenosis from turgescence of these vessels under the influence of various irritating causes. The rational treatment of hypertrophic nasal catarrh should therefore be based on the recognition of these three conditions: (1) excessive discharge; (2) stenosis from structural hypertrophy; (3) temporary stenosis from turgescence of the venous sinuses.

1. The proper management of the excessive discharge in the use of the various cleansing and astringent solutions, and the methods by which they are best applied, is familiar to all, and my own views and methods I have given in my work on "Diseases of the Throat" and elsewhere.

2. The treatment of the structural stenosis by the use of destructive agents, such as acetic acid, chromic acid, the galvano-cautery, or by Jarvis' snare écraseur has also been sufficiently described; and I have nothing new to offer. My microscopic examinations, however, it seems to me, show conclusively, that when we have structural changes in the nose, such as have been described, we cannot accomplish their absorption by medicated solutions, but that the tissue must necessarily be destroyed or ablated. As I have shown, in comparatively early stages of the disease there is an extensive transformation of lymphoid cells into connective tissue, and in the later stages these lymphoid cells have given place entirely to connective tissue; and certainly when the latter has occurred the only resource is in destruction or removal.

In a paper read before the American Laryngological Association, in June 1880 (*Archives of Laryngology*, April, 1881), I called attention to the value of glacial acetic acid as a destructive agent in hypertrophy of the nasal mucous membrane. Since that time I have used this agent to the exclusion of all others, and am disposed to speak most positively of its value above all other caustics. So excellent are the results that I have obtained, that I regard it as even more efficient than the galvano-cautery, and certainly far less painful. In those cases which admit of the use of the snare, that should be used. In those cases in which the snare cannot be used, I prefer the acetic acid.

3. When there is a constantly recurring but temporary stenosis, due to a sudden turgescence of the venous sinuses, I think we may infer that the condition is due to an impairment of tone in the muscular coat of the veins, by which, under the influence of various exciting causes, such as a damp atmosphere, etc., the vessel-coats relax and the vessels become distended, in one or both nasal cavities, or perhaps alternating from one to the other. In those cases in which this condition is prominent, I have found excellent results from the use of a very mild faradic current. The electrode which I have devised for this purpose has served excellently well in my hands. It is equally adapted for each nasal cavity, and can be applied to the middle

or lower turbinated bones. The current should be applied, as a rule, twice each week, and for about two to three minutes in each cavity.

How Long Should the Subjects of Contagious Diseases be Isolated?—The Academy of Medicine of Paris, after a careful study and report of a special commission, has given the following answer to the above inquiry. (*Gaz. Med. de Paris. Med. News*):

1. Pupils affected with chicken-pox, small-pox, scarlet fever, measles, mumps, or diphtheria, should be strictly isolated from their comrades.

2. For small-pox, scarlet fever, measles, and diphtheria, isolation should not be shorter than forty days; for chicken-pox and mumps, twenty-five days is enough.

3. Isolation should last until after the patient has been bathed.

4. The clothing worn by the patient at the time he was taken sick, should be subjected to a temperature of 90° C. [194° Fahr.], and to sulphur vapor and then well scoured.

5. The bedding, curtains and furniture of the sick-room should be thoroughly disinfected, washed and aired.

6. The pupil of a school, after recovery from one of the above contagious diseases, should not be readmitted to the school unless furnished with the certificate of a physician that the above precautions have been observed.

Surgery.

Nerve Stretching—What is Done by It?—The *American Journal of Neurology*, May, 1882, thinks that experience has established the following respecting the above subject:

1. Adhesions are broken up that have existed between the nerve and its sheath, or the surrounding tissues. In this manner an irritant is removed, just as when an adhesion between the glans pénis and the prepuce is taken away. Fabricius Guillaume, as far back as thirty years, had great success in relieving rheumatic pain by forcible extension of articulations; and the secret of his good fortune, as well as of that which has recently befallen those who have simply hyper-extended the thigh for sciatica, is, in all probability, to be mainly found in this rupture of adhesions.

2. Rupture of nutritive vessels of the nerve, and consequent alteration in the supply of blood. Vogt has found extravasations beneath the hook upon which the nerve was lifted, and above and below it in the sciatic notch, at the entrance of the nerve-branches into the thigh muscles and those going to the peroneal muscles, and in the popliteal space. These were the points which Klemm pointed out as peculiarly liable to be the sites of disseminated neuritis. These extravasations lasted five to six weeks, then disappeared entirely. They were limited to the conjunctival sheath.

3. A neuritis has been observed at the point where the nerve was stretched; in some there has been an apparent neuritis migrans; in some degeneration of nerve-fibres in scanty number, which must have been numerous in the instances where the reaction of degeneration was present.

4. There has been found a myelitis at the point of entrance of nerves into the cord.

5. When a nerve is forcibly stretched, the cord and medulla oblongata are probably moved, too. Dr. Dana's experiments, which would negative this assumption, were only made on animals, whilst the confirmatory ones of Vogt and Gussenbauer were performed on human corpses, and with a minuteness of detail and description that invests them with a credibility not to be lightly impugned.

But over and above all these visible things, the most important cause is one that cannot be dragged captive to the stage of the microscope. It is that unknown molecular change which is made on nerve-centres through sensory nerves; the same which is made by blows, electricity, massage, barometric and thermometric variations, circumcision, operations on the female genitals, including the uterus, operations for calculus, and operations of all kinds. What can make a more forcible impression upon a nerve-centre than to lay bare a structure which nature has endowed with a monopoly in the carriage of sensations—by this laying bare depriving it of the textural shields beneath which this same nature has anxiously hidden it—take it up into the hand, handle it, and then pull upon it steadily, heavily, and long? Physiologically it is just the same as if we beat the patient with clubs all over the peripheral distribution of that nerve—with this important distinction: that, in the neater deed of stretching we do not induce the profound disturbance of all the other tissues, as in the clubbing. And when to this profound impression of the mere stretching of the nerve, we add the lesser impressions of the removal of irritating adhesions, the interruption in the blood nutrition, the neuritides and the myelitides, the movement of cord and medulla oblongata and possibly even of the intracranial masses, we would have certainly excellent reasons to suppose *a priori* that this procedure was capable of powerfully influencing nerve-centres.

SHALL THE AXILLARY GLANDS BE REMOVED IN EVERY CASE OF CANCER OF THE BREAST?—Dr. A. Pearce Gould (*London Lancet*, July, 1882) answers this query as follows:

1. Partial excision of a cancer should never be performed.
2. Where breast and axillary glands are cancerous the breast alone should never be excised.
3. That in very many cases of cancerous axillary glands excision can be performed with only slight additional danger, and with great benefit to the patient.
4. That the cases where such excision is not practicable are those in which the growth has spread to the chest walls. Pressure upon, or even adhesion to, the main bloodvessels and nerves of the axilla is not an insuperable bar to the operation, if sufficient care be taken.
5. That when no enlargement of axillary glands is to be made out, those glands may yet be infected with cancer, and that, therefore—
6. Even when not evidently diseased, they should be removed at the same time as the diseased mamma, or, in other words, "it is advisable to remove the axillary glands in all cases of cancer of the breast submitted to operation.

ANOTHER REVIEW OF THE GARFIELD CASE.—Dr. J. W. White (*Medical News*, June 24, 1882), from his studies concludes:

1. It was never possible at any time or by any method to ascertain definitely and safely the precise character and extent of the President's wound.
2. Any attempt in this direction further than was made by the attending surgeons would in all probability have resulted fatally at once, and their steadfast resistance to extraordinary influence in favor of operative interference entitles them to great credit.
3. The treatment, which was directed to meeting the indications as they arose, was in every respect that which it would have been necessary to adopt had it been possible fully to determine the exact nature of his injuries.
4. Life was prolonged for an unusually protracted period by the careful and skilful attention which the disinguished patient received.
5. Death resulted from the secondary effects of the wound upon structures far beyond the reach of surgical interference.
6. No undoubted instance of recovery from such a wound is to be found recorded in surgical literature.

Toxicology.

TOBACCO SMOKE—ITS CONSTITUENTS.—From experiments to determine the poisonous elements of tobacco smoke, Herr Kissling (*Polytech. Jour.*, *London Medical Record*) specifies, as strongly poisonous constituents, carbonic oxide, sulphuretted hydrogen, prussic acid, picoline bases, and nicotine. The first three occur, however, in such small proportion, and their volatility is so great, that their share in the action of tobacco-smoke on the system may be neglected. The picoline bases, too, are present in comparatively small quantity; so that the poisonous character of the smoke may be almost exclusively attributed to the large proportion of nicotine present. Only a small part of the nicotine in a cigar is destroyed by the process of smoking, and a relatively large portion passes off with the smoke. The proportion of nicotine in the smoke depends, of course, essentially on the kind of tobacco; but the relative amount of nicotine which passes from a cigar into smoke depends chiefly on how far the cigar has been smoked, as the nicotine-content of the unsmoked part of a cigar is in inverse ratio to the size of this part, *i.e.*, more nicotine, the shorter the part. Evidently, in a burning cigar, the slowly-advancing zone of glow drives before it the distillable matters, so that in the yet unburnt portion a constant accumulation of these takes place. It would appear that in the case of cigars that are poor in nicotine, more of this substance relatively passes into smoke than in the case of cigars with much nicotine; also that nicotine, notwithstanding its high boiling point, has remarkable volatility.

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Original Communications.

The Power of Alcohol Over the Nature of Man as Displayed by the Modifications of Mind, Morals, and the Physical Constitution Incident to its Use.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

PART II—THE PERIODIC INEBRIATE—THE CONSTITUTIONAL DESIRE FOR THE STATE OF INTOXICATION LOCATED IN THE SENSIBILITIES AND EMOTIONAL NATURE—IMPULSE—MOTIVE—DISEASE AND PHYSICAL INJURY CAUSES OF THE ALCOHOLIC NEUROSIS—HEREDITY—CHANGES IN BRAIN STRUCTURE—DEFECTS AND INJURIES—UNAVOIDABLE CAUSES OF THE INEBRIATE DIATHESIS—IMPROPER MENTAL TRAINING.

IT will be observed that as yet the more prominent features of prevailing intoxication only have been the subjects of notice. The moving cause, the motive power which leads to the establishment of the habit of dram drinking and consequent intoxication, has not as yet been the subject of inquiry. Dealing with the mere drunken state, either by law, or religion, or medicinal appliances, will not cure or render inoperative, the disease upon which it is based, that is, not directly and evidently. There are several modes of indirection, by which a certain amount of restraining force may be brought against even the alcoholic predisposition, which will be indicated further on. But these are not fundamental, not reliable; and they are applicable only in exceptional cases. But the effects of this disease are so deplorable and far-reaching and wide-spreading, that the removal, or at least the modification of the sinister influence which leads to a desire for intoxication, is surely of the utmost consequence. Of the various disasters flowing directly from the condition of intoxication, there is nothing that enters into the present discussion, except as they relate to the situation of the inebriate himself. It matters not how vital they undoubtedly are in relation to the family, to society and to the state: their relations even in this wide sense, will give no information which will prove useful in comprehending the essential nature of the evil. It is necessary to approach the periodic inebriate in his own person and inquire what it is that, being a ruling factor in his constitution, constrains him from time to time to plunge headlong into a condition of alcoholic mania.

The terms, *dipsomania* and *oinomania* are defined by Dr. Dunglison in one respect, in the same words. They are said to signify "an insatiable desire for intoxicating liquors." It will be observed that the word *insatiable* refers to matters of sense and physical appetite, rather than to any emotional or other mental quality. Dr. Maudsley says, speaking of dipsomania; "it is a well marked form of mental degradation if not of actual mental derangement which shows itself in a fierce craving for alcoholic stimulants." Here also, although the depraved mental element is recognized, still the weight of the definition may be said to rest upon the idea of an overpowering desire to enjoy the particular sense of taste which it is the property of alcohol to afford. In fact this is a very common view of alcoholic inebriety; namely, a morbid desire to experience the sensual pleasure flowing from a particular modification of the gustatory faculty.

That there exists any temperament or constitutional proclivity which calls, with irresistible force, for alcohol because of its agreeable sapid flavor is surely an erroneous supposition. There are men, it is true, who are fond of the taste of alcohol, but who are not pleased with its effects, and who are not inebriates. But the fact is undeniable that the gustatory sensation derived from alcohol is usually disagreeable, and that the greater proportion of impulsive drunkards, those who drink deeply and drink strong liquors, positively dislike the taste of alcohol. They gulp down their liquor hastily, instantly thereafter washing out the mouth and throat with draughts of water. The definition of dipsomania, which indicates that the term applies to a class of persons, who, to gratify a mere whim of the sensual appetite in order to enjoy so trivial a pleasure, will plunge self and family and society into turmoil and destruction, places the inebriate in a position so detestable and wicked that it is unjust even to him.

There seems, therefore, to be a valid objection to the common definition of dipsomania. It would be more accurate to call it an overpowering desire for intoxication—not intoxicating liquors. This appears to give a better idea of that neurotic state which impels to intemperance; to that constitutional temperament otherwise known as one of the forms of inebriety. When the desire for the state of intoxication in certain temperaments becomes overmastering, the case is very different from the desire for alcoholic liquors in the gratification of a morbid sensual taste or relish. True, alcoholic liquor, affording as it does usually, the quickest and readiest means of securing intoxication, is chosen by the sound mind, not the unsound, as its agent in accomplishing a morbid and insane purpose. For there will appear reason to see that the primary and moving mental defect in the periodic drunkard is in the feelings, the emotions, the sensibilities, and not in the reasoning faculties. And in him, the rational faculties are employed, just as they are often employed in securing the demands of maniacal authority, in following out some irresistible impulse, originating not in reason and judgment, but in blind feeling, or in morbid sensibility. Motive, let it be remembered, goes before reason, judgment and will. And the blind and unbidden motive evolved from the organic manifestations and activities related to the mysteries of heredity, is the sign of a defective and unsound moral nature, founded upon derangement in the human constitution. Such a moral dereliction may or may not come from the conduct of the individual. But wherever present in a substantial degree, it demands with irresistible force, through an imperfect or debased mental quality called impulse, that the intelligent mind shall contribute to the gratifications of its depraved and insane proclivities.

Upon considering recurrent mania, or viewing the characteristics of epilepsy, it will readily be perceived that it is possible that there may be seasons of mental repose and of apparent mental health, which, nevertheless, under the unconscious operations of organic processes connected with heredity, do give place to mania or convulsions. There is no known reason why the overwhelming desire for intoxication may not, also, grow out of organic changes, or spring from the molecular operations superinduced in the brain through morbific influences or physical injuries, and thence, come even into consciousness at indefinite intervals of time. It will appear more clearly hereafter that the condition of the true spasmodic inebriate and his conduct are not the outcome of a base pandering to the demands of mere animal sense. But they are the consequences of a constitutional morbid impulse to enter into a peculiar state of mind, a state characterized by abnormal properties in mental activity and dangerous withal, from radical defects in mental processes in general, as they become evident in the several mental departments of will, rationality and of the sensibilities. It must not be forgotten that dipsomania calls for intoxication only, while the troublesome situations connected with and following intoxication, must be attributed in a great degree to certain unexpected and undesirable properties belonging to the agent—alcohol—which is employed in affecting the neurotic purpose.

These complications are superadded to the fact of intoxication, and they are in no wise objects in view when the inebriating qualities of alcoholic liquors are invoked. It thus appears upon the whole that drunkenness partakes more and more of the recognized qualities of insanity, as the inquiries respecting its nature are particularly and earnestly pursued.

Preliminary to an inquiry respecting the actual condition of a mind under the influence of intoxication it will be profitable to notice some of the prominent causes and some of the family relationships of dipsomania. "The dipsomaniacal diathesis," says Dr. T. D. Crothers, "is only the acute and chronic disease toned down and merged into a predisposition more or less obscure." Certain it is that the inebriate diathesis is frequently the legitimate production of chronic intemperance in ancestry. The structural changes which chronic alcoholism often produces become the foundations of new and abnormal constitutional traits. Those changes in brain integrity underlying the manifestations of these abnormal constitutional traits will be more fully described when the subject of chronic alcoholism becomes the special field of investigation. It may be said in general in this connection that, while an increase of structure within the precincts of the brain is the substantial basis of certain morbid mental proclivities, it is a fact that an actual increase of the true brain tissues, as for instance, the cells of the gray matter, does not always take place. In regard to the gray matter and the true nerve fibers, there is no reason to doubt that they are no exceptions to the physiological law, that "function increases structure," and that with them as with other organs, use produces increase. Still, it is the fact that in alcoholism the modifications in brain structure, and even in the structure of brain tissue itself, are not most commonly of a kind which arise from functional exercise of the mental faculties, or more properly of the ideational centers. The modifications of the mental characteristics which are found in the inebriate neurosis, are more likely to spring from changes and augmentations in the interstitial tissue of the brain. Such interstitial changes are those of increase in the quantity and bulk of the fibrous structure, the neuroglia, of the brain. This implies an intrusion upon the true brain cells and brain fibres, and a consequent modification in their personality and their functions. And again, this presumes a probable change of a permanent kind in mental characteristics, which, by the laws of heredity, are liable to be transmitted to progeny. The long continued anæsthesia, also, in the habitually intemperate may, no doubt, at length induce an habitual loss or impairment of function, in certain of the finer sensibilities in the brain. This condition, too, is liable to come under the yoke of heredity. Thus several ways already begin to appear, by which the grossness and cruelty of the criminal may be accounted for, when he springs from inebriate ancestry, without for a moment assuming the existence of the slightest sensible disease in his own brain.

"Alcohol is the most powerful agent we know of," says Dr. Chenery, of Boston, "in the production of connective tissue hypertrophy, and thus of fibrous encroachments which must result in atrophy and degeneration of gray matter" (*Journal of Inebriety*, Vol. iv, p. 94). Here is the establishment of a brain defect which must operate as an injury, otherwise inflicted, will be seen to act. Besides, defects become transmissible to posterity, and the constitutional peculiarities connected with them reappear in it.

While it is possible that the diathesis provocative of the appetite for alcohol may be the offspring of long continued indulgence in an intemperate course of life, on the part of ancestry, this is not the only, or, perhaps, the most common source of its production. Any cause adequate to induce a profound disturbance in the mutual relations of the nerve centers; anything which, in the language of J. Russell Reynolds, "operates with extreme force from without, or by reason of some undue susceptibility within, disturbs the growth of the brain, deranges the relations of its parts, upsets the harmony of its functions, results in an unsound mind." And anything which establishes a morbid predisposition in the brain to fall into such wreck, upon the application of slight exciting causes, establishes also a morbid neurotic constitution; a prominent tendency of which is the development of dipsomania under the provocation of even a slight alcoholic excitation.

The following is a good illustration of the principle under discussion, drawn from actual life. The source whence I obtained it is of undoubted authority: "A young priest, early dedicated to his calling, having occasion to undergo an arduous journey on foot during a season of inclement weather, was, with difficulty, induced to partake of a portion of alcoholic liquor. It was his first experience with alcohol. But he never afterwards could repress his longing for liquor nor refrain from alcoholic indulgence. He lived and died a drunkard." The parents of this man were both alcoholic inebriates. They gave him his alcoholic temperament—his predisposition to neurotic instability. Dipsomania was not developed, however, until its exciting cause, alcohol, was applied. Perhaps it would never have appeared otherwise, although some form of nervous calamity would most likely have overtaken him upon the presentation of suitable and favoring circumstances.

A few of the more common agencies at work in the production of a morbid neurotic diathesis may be designated. Many of them are obvious. Thus, any profound shock, physical or mental, may found at once a neurotic temperament; as, for instance, grief, disappointment, fright, horror; in short, profound emotional excitement, proceeding without the correcting and controlling intervention of reason and judgment; a loss of balance and equilibrium between the essential departments, which together, constitute mental unity. The habit of steadily using the nerves of vision in prolonged study while at school, may sometimes injure the stability of the nerve centers to no small extent. The practice of corporal punishment in school, at the hands of a stranger, may tend to so shock the nervous system of a feeble and timid child, as to sensibly predispose to the founding of a permanent neurotic diathesis. The instances wherein lasting and irreparable disaster, has followed the sudden and unexpected excitement of the emotions and sensibilities, such as epileptic fits, insanity and imbecility, are innumerable and well known; and they need not be dwelt upon. But let it be remembered that this is, at least usually, the outcome of defect; of local and isolated points of paralysis in the active centers of brain equilibrium, and not of strain, or of increased tension in local brain function, as compared with general or average brain power.

Bodily injuries are amongst the most prominent and frequent exciting causes of inebriety. Dr. L. D. Mason, in a carefully tabulated statement of 252 cases of alcoholic inebriety (*Jour. of Inebriety*, vol. iv) shows that injuries to the head are more frequently the cause of the alcoholic neurosis than any other single class. In one out of every seven of the cases he reports there had been some injury to the head, at least precedent to if not the cause of the trouble. Again, other severe bodily injuries besides those of the head were observed to hold a remarkably prominent place in the presumable establishment of the constitutional proclivity for intoxication. Of course it cannot be known how many of the whole number of the cases reported by Dr. Mason owed their predisposing causes to injuries received, it might be, in a more or less remote ancestry. The loss of a limb, independently of the shock to the entire nervous system, may be supplemented by atrophy of certain portions of the brain; so as to interfere with the consensual and attentive correspondence of all parts of that organ in its functional operations. Thus, Sepilli speaks of secondary atrophy in the motor zone, consequent upon the amputation or loss of an extremity.

When it is considered that in fact the mind and body are, in a large sense, one; that mental and bodily perfection consists in the preservation of a certain natural and unstrained symmetry between the brain and the corporal structure at large, it will readily appear that a grave bodily injury must inflict the most serious consequences, as a general rule, upon the brain. Dr. H. P. Stearns (*Alienist and Neurologist*, vol. 1, p. 471.) declares that a want of due attention to the symmetrical development, or rather education of the brain as one part, and the physical body at large as the other part of the whole man, is often an important factor in founding an insane diathesis. "The physical and the psychical should be in harmony," if the best mental work is to be expected.

That such harmony is often rudely and most profoundly disturbed is clear to everybody. The destruction of one of the senses is followed by a brightening of the others. While some mental attributes are probably obscured, others are sharpened, intensified. In a manner analogous, it is known that after great bodily injuries of a permanent character, new and remarkable brain adaptations take place. Absence of brain function, correlative with the lost or injured physical member, is followed by atrophy of structure. But it is undeniable that in such instances, just as in those where there is destruction of an entire sense, some compensating action is set up in certain other parts of the brain. It is manifest that in all such examples, whatever may be gained specially, whatever is acquired in artistic genius, and instinctive alacrity and intuition, and however beneficial this may all be to the world at large with respect to special departments of knowledge and taste, still these advantages are at the expense of the symmetry of the organism. A mind sustaining such relations can never be truly well balanced. What is lost is vital to the equilibrium and stability of the mental element of human nature; what is acquired is æsthetic, non-practical, but of surprising and shining quality, filling the mind contemplating it with wonder always, and often with admiration.

And so "function increases structure;" and special traits of character may be "built up by a laborious training in accordance with a law of structuralization of function;" for, in the functions of the nervous centers "there are vital acts of assimilation of experiences and their structuralization by nutrition." (*Maudsley, Path. of Mind, p.* 495). Thus the new powers may develop new brain element which propagates its kind in posterity. The order of constitutional brain modification is not here probably the most common order, being, as it is, the order of redundancy, or direct increase of structure, associated, of course, with more or less evident compensating disabilities. The more common mode of hereditary change is defect, atrophy, paralysis, and a more or less complete assumption of such defect by the constitution, and its transmission in some form of morbid neurosis to progeny. But let it not be forgotten that the brain is no longer symmetrical. Its balance is impaired, and a thousand airy nothings may direct those delicate and wonderful æsthetic mental tendencies into unknown and unexpected ways, and precipitate them into morbid and distressing associations. New peculiarities of mind spring up, no longer æsthetic; no longer invested with mysterious and amazing potentialities. On the contrary, they may exhibit themselves in the forms of neuralgias, bodily deformities, asthmas, epilepsy, insanity, and the terrible craving for intoxication with its inevitable miseries. The oinomaniacal diathesis may thus come into being; and the tendency of morbid neurotic temperaments to assume new shapes and forms, not only in individuals themselves, but through hereditary transmission, gives ample opportunity to some special neurosis, apparently associated with desirable mental traits, to assume some other and distressing form as the developments of life take place in passing time. A neurotic diathesis, whether of an exalting or depressing nature, can never be attended with true happiness. The very central idea of the neurotic condition is instability, discontent. The unbalanced mind, the asymmetrical body and brain, is always attended with worry and nervousness, making life wearing and miserable.

In viewing the more prominent causes of the production of that constitutional condition of nerve instability called morbid neurosis, the influence of improper mental training should not be omitted from consideration. Dr. J. S. Jewell, of Chicago, in his paper "On the Influence of Modern Civilization on the Production of Insanity," says that there is "too much specialization of nerve function in the pursuits and avocations of life." It is not unlikely that the pursuits and habits of life alluded to are themselves the consequences of neurotic predisposition rather than the causes of them. "It is a fact," he continues, "that civilization as we find it at the present, carries with it the causes or conditions of decay, or even of its final destruction; it is the nervous system which is to be the chief theater of the ruin with which the race is likely to be overthrown. In highly civilized communities there is a constant tendency to a loss of balance in nerve development in which the sensitive side of the nervous system preponderates over the motor part of the same. All disturbances of symmetry or balance in development tend towards diseases. (*Journal of Mental and Nervous Diseases*, Vol. VIII., No. 1.)

But the harm wrought by a bad system of mental culture is not confined to the relations of body and mind. It disturbs the harmony and well-being of the mental faculties themselves, and amongst themselves, and brings into existence a condition of nerve instability that threatens the most serious consequences in a great many persons. President Joseph Le Conte in an essay entitled "The School, the College and the University," says truly that "the natural order of culture must be the order of natural mental development," (*Princeton Review*, March, 1880), meaning the natural order of the development of the mental faculties. In other words, and as medical men would say, the order of taking up and pursuing studies should be in strict harmony with and relation to the progressive development of the human brain. Nothing can be more reasonable than this proposition.

The question now arises, what is the natural order of the development of the mental powers? On this subject the same authority says that the order of development as regards time is: First, The perceptive faculties, and soon thereafter memory, on the establishment of the mental function of association; second, the imagination and æsthetic faculties—the sensibilities, feelings and emotions; and third, the reflective faculties. Childhood is the period of perception and memory; youth is the time for the revels of imagination, of romance, of feeling; while in early maturity the higher faculties of productive thought begin to show themselves. To change the form of expression, it may be said that in early life, sense is the basis of education. Further on, sensibility and the affective faculties are developed. And, in the full maturity of the brain, both sensation and the emotions are blunted; and ideas, logic, abstractions occupy the attention.

Taking these propositions as true, and they are the deductions drawn from innumerable empirical observations, it follows that the higher and more abstruse sciences should be withheld from mental contemplation, until the brain is sufficiently mature, and sufficiently well grounded also, in that species of mental training peculiarly adapted to the developments and capacities of young life, to be able easily to deal with them. Perceptions cannot be grouped, classified, and arranged into knowledge and true science, until, after they are thoroughly registered and recorded in the brain, they become the rightful objects of contemplation; and especially of co-ordination, through the operation of the associating nerve centers and nerve fibres, described by Meynert. But the co-ordinating centers, with their intervening nerve fibres are, to a great extent at least, inactive and dormant up to the time in life, when the perceptions are sufficiently established and fixed, to become the subjects of this class of mental function; belonging as it does to the mature brain. Clearly this process of association which, first giving birth to conception, becomes the process of the final arrangement of principles underlying phenomena; which process includes in fact, logic, abstraction, reason and final judgment. Evidently indeed, all this is impossible to a brain not in a condition of pretty complete maturity. Hence the impropriety of compeling children and young students to engage in studies which are, by their fundamental qualities, in advance of the developed powers of their minds. Abstractions and pure reason are not proper subjects to place before the young and undeveloped faculties; any more than the rosy and joyous, though unstable and fantastic whims and pictures of memory and the sensibilities, are proper for the serious consideration of the mature powers.

An inspection of the routine proceedings in the common schools of the United States will afford sufficient illustration of the foregoing principles. Two or three in a class of a dozen or more will be observed to be clearly in advance of the others. These two or three will exhibit preternaturally bright eyes, with a nervous and anxious alertness of manner, and more or less tremulousness of the lips, if not of the entire muscular system. The others lag behind; and it is evident that they are mentally unequal to the task before them. With their best industry, and the utmost tax upon their powers, they soon discover their inability to master what is set before them to accomplish. They fail, and become humiliated and disheartened. The grade of study is too high, too much is demanded, and those who are deficient feel worry and mental pain. Those in advance, with unwise praise are induced to labor on; while the halting and inefficient, offended and indignant with the intuitive perception that they are oppressed and overtasked, become sullen and cease to strive. Mark the outcome. The apparently stolid, are the least sufferers. Defeated in the mimic battle of the school-room, their mental energies not having been oppressed, they are strong and sturdy in entering upon the battle of real life. Their powers being unequal to their school tasks, were not seriously employed; were surely never strained or exhausted. The utmost they suffer is the superficial shame and worry of school failure. But the heads of the classes in school life are heard of no more when life's real battle is to be fought; because in their early growth their brain functions, their mental energies, were permanently injured by systematic over-straining. The course of study in the common schools being often in accordance with the highest capacity of the brightest minds, is too wearing, too exciting to be healthful.

It is not so much the business of education to develop the mental powers, as it is to train them and render them effective. Development of structure, in the brain as elsewhere, is in relation to the perfection of organic processes; their purity, simplicity and freedom from toxic, or morbid, or hereditary complications; while training is the development of function by legitimate and proper exercise. On this point Dr. Jewell remarks: "It is my opinion that a very great number of cases of nerve disease are produced, such as cerebral congestions, undue nerve irritability, sleeplessness, or at least imperfect sleep troubled by dreams, headache, various forms of neurasthenia, not to speak of graver forms of disorder—by systematically overtaxing children in our public schools." That is, by an unwise and unscientific oppression of mental strength and confusion of mental function. Nothing is more hopelessly discouraging, more totally blank and meaningless to a child than the requirement, at a time when his mental faculties are as yet utterly unfitted for such work, of some analysis, say in arithmetical fractions, involving one or more hypothetical contingencies, and demanding as a condition of success the development of the higher powers of abstract reasoning. Under such circumstances one may talk and explain with the utmost pains and care; the labor will be vain, because the lesson is incomprehensible. It is, if possible, still worse when the faculties first begin to open for contemplating such topics, to subject them to a kind of whip and spur discipline in the notion of giving them strength, when only exhaustion and neurotic results can possibly ensue. Here again appear the processes of overstraining and overtaxing; just as excessive study, under the most favorable circumstances, results in exhaustion, and in the probable disasters of an unstable nervous system, or, the neurotic predisposition to all the various forms of active nervous diseases

It may be said, in concluding the subject of the various causes, recent or remote, of the production of that unstable condition of nerve which will assume convulsive activity in some disastrous form, upon the application of even the slightest exciting causes, that such nerve instability is not most commonly the result of an indulgence in the habit of drinking. The irresistible impulse to drink is very frequently the outcome of a morbid neurosis, established by causes wholly disconnected with the effects of alcohol. While intemperance may found an inebriate diathesis, it is, after all, a single one of a prodigious number of efficient causes in the establishment of a neurotic temperament. The greater proportion of the oinomaniacal neuroses is to be found in those who have received them by inheritance, out from the epilepsy, the insanity, the vices and misfortunes and physical injuries of a world long since dead and gone.

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Insanity.

BY DR JAS. G. KIERNAN, CHICAGO.

LECTURE III.—SYMPTOMATOLOGY.

PATHOGNOMONIC symptoms of insanity do not exist. To judge from the position taken by certain "experts," insanity is unlike other morbid manifestations in not being made up of symptoms, unimportant *per se*, but of formidable meaning when combined. The subject is approached by physicians, not from the standpoint of total ignorance, but from an *a priori* standpoint whose existence is a great hindrance to the recognition of its true nature. In the estimation of many physicians no man is a lunatic unless he is wildly excited or deeply demented. This *a priori* bias so sways certain physicians suddenly appointed, without experience, to asylum positions, that they have cited symptoms of insanity as causes. Thus an asylum report* gives as a cause of insanity "fear of imaginary enemies." To study insanity properly such *a priori* ideas must be eliminated.

How difficult it is to do this is shown by the following anecdote: One of Esquirol's pupils asked him a sure criterion for the limit separating sanity from insanity. The next day Esquirol invited his pupil and two individuals to dinner, one of whom was most correct in appearance and language, while the other was very loquacious, full of himself, and his future. When taking leave the pupil reminded his master of the criterion for which he had asked. "Answer the question for yourself," said Esquirol. "You have just taken dinner with a madman and with a sane individual." "Oh!" answered the pupil, "the problem is not difficult; the sane individual was that distinguished and well-informed man; as to the other he was a chatterer and a fool who really ought to be shut up." "Ah!" replied Esquirol, "you are making a great mistake; the one whom you took to be so very wise, believes himself to be God the Father, and affects in his manners the reserve and dignity which he believes belongs to his position; he is a patient at Charenton. The young man whom you took for a fool, is one of the most illustrious of French authors, Honorè de Balzac."

Physicians accustomed to judge of disease not by single symptoms but by the totality of such lose sight of this sound principle when they approach insanity. This is well attested by the errors recorded in the minutes of many lunacy trials. Dicta unjustifiable on any scientific ground are laid down as established facts, not under the insolent cross-examination of a lawyer, but despite such cross-examination. To such an extent is this done that medical journals cite isolated facts as evidence of insanity, as witness the following from a medical journal:*

"When Swift harnessed his friends, even Dr. Sheridan, and drove them about his house and yard for amusement, how many would have termed him sane? Cardinal Mazarin in an attic, jumping over chairs and alarming his attendants, might well have caused apprehensions for his mental safety. Burton, after working on his 'Anatomy of Melancholy' through the greater part of the night, and going, at sunrise, to seek recreation in the oaths of the fish-women, at Oxford, might easily have been regarded as distrait. Pope Innocent III., leaving his cardinals in a discussion, and running off to play nine-pins with his servants, might be gravely suspected as to his mental condition. And what is to be said of Domitian, spending hours in a day catching flies, to string them on a bodkin!!! or of Samuel Johnson, counting the upright bars in an iron fence, and afraid to go onward, because their number was odd, instead of being even!! or of Napoleon, whining to his steward, at St. Helena, that Sir Hudson Lowe sent him poor poultry, and had curtailed his post-prandial supply of candy."

To an alienist the task of distinguishing sanity from insanity in these cases is easy. The men of Swift's day were addicted to extravagant frolics; a fact which seems to be unknown to the author of this editorial. Had Swift driven his friends in the public streets something might be said about sanity, but his conduct under the circumstances was explicable by the manners of his time. Mazarin was obliged to indulge in exercise privately if at all, to avoid the intrusive importunity of suitors.

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*Gaillard's Medical Journal, Volume ii, 1880, p. 456.

*American Medical Weekly, 1882, Vol. II.

Burton was evidently a good psychologist who recognized the value of a change of ideas as a means of relieving mental strain. He found relief from over-mental exertion in, as Charles Reade* aptly puts it, the "humors" of the day and one not finically sensitive might well find amusement in the quaint use of expletives. Pope Innocent III. was bored to death by trivial discussions and like a sensible man found relief from these in healthful exercise. Domitian was an epileptic as also was Napoleon, whose querulent conduct is thus explained.

Johnson manifested, as has been mentioned elsewhere, decided symptoms of insanity, but the conduct cited would not alone raise the question of insanity since such beliefs were ordinary phenomena of his time. The error into which the author of the editorial has fallen is that of the pupil of Esquirol; he has attempted to establish absolute criteria where none but relative exist. Exactly the same mistake of not taking all the circumstances into consideration was made in a case which came under my observation:

Case I. A Russian Jew was robbed of all his money; he thereupon proceeded to tear his hair and clothes in typical biblical style. He was taken to a station house. Here, as his food was not prepared by Jewish hands, he refused to eat. Whereupon he was sent to an asylum on the grounds that he had done violence to himself and property and had refused food. None of the people examining him understood his jargon of Polish-Hebrew-German and in consequence interpreted his acts by their own standard. Upon the fact whether the conduct or speech of a man is in accordance with his circumstances turns the question of sanity or insanity. It is not an absolute but a relative test. The theft by a hoodlum of a roll of goods creates suspicion of criminality only, but theft in a case like the following† is certainly ominous of mental disease:

A lady, the wife of an eminent physician, of middle age and generally respected, was suspected of pilfering from a draper's shop. She was watched, followed, searched, and several small articles were found concealed in different parts of her dress. She was given into custody, went through the painful ordeal of an inquiry at the police court, and was committed for trial. The facts were perfectly clear, the whole of the lady's life, as far as its history was known, was not only free from reproach, but apparently rational. The articles stolen were so trivial that no sane object could exist for intentional theft, and the only explanation was that she was dominated by an uncontrollable impulse. She died very shortly after the ordeal she had undergone, broken down with the shame and disgrace, and after her death every drawer and cupboard in her house was found full of new goods, which she must have abstracted during many years, and in every instance which were contained in their original wrappers. She was a religious woman, and listened with respect and veneration to the lessons taught her in church.

A prostitute's indulgence in indecent conduct is without significance, but the sudden appearance of this in a hitherto chaste woman hints at mental disease. Exposure of person by a rowdy is of no psychiatrical importance, but exposure of person by a staid refined man of business should cause considerable anxiety among his friends as to his mental condition. The existence of such beliefs as the following among negroes is already stated in lecture one:

"An old negro believed that through witchcraft he had discovered the place where a basket of gold was buried, and induced other negroes to dig for it. They were thirty feet below the surface, and cutting through strata of the hard red sand rock. They claimed they would have found the treasure above this rock strata but for an unfortunate occurrence when one of them was almost in sight of the basket of gold and was digging vigorously, when he made a 'miss-lick' and hurt his foot, whereupon he sat down and went to 'kussin,' and the treasure immediately sank ten feet deeper and straight through a bed of rock as hard as flint."

Mediæval beliefs flourish in the undisciplined minds of the negroes as the few living representatives of extinct animals flourish in certain districts. Beliefs of this kind in educated men call for immediate investigation. Uncleanliness, profanity, peculiar dress, extravagance, penuriousness may be only characteristics of the individual or be valuable evidence of insanity. In a case reported by

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*A Simpleton.

†Memoirs of Sergeant Ballantyne.

Blandford* a clergyman was first regarded as insane from wearing a white hat, yet the citation of this fact alone as evidence of insanity without the circumstances which rendered it valid would meet with deserved ridicule.

Facts of value in the diagnosis of insanity are often received at second hand. Here there are many sources of error. Few of the laity can give facts alone. The majority give facts modified by their own impressions, and these impressions are based on misinterpretations of irrelevant circumstances. Thus, in the following case, the man's wife saw no evidence of insanity in decidedly insane conduct, and all that struck the neighbors as suspicious was the fact that the family kept aloof from them which was simply due to the pride of poverty; the family being in destitute circumstances:†

Case 2.—A machinist, for some months had had morose fits, in which he would sit motionless with his eyes gazing on vacancy, and his mind apparently absorbed in some dismal project. He would suddenly spring up, mutter incoherently, tear his hair, and walk the room wildly. He would get up in the middle of the night, light a lamp and stand by his son's bedside, looking down upon him with an agonized expression, and then would ascend to the attic and lie there moaning pitifully. His wife had been at times afraid of him, and thought that he was acting queer, but never dreamed of insanity. Since the family moved into the house they had held aloof from the few neighbors. Their doors were generally kept fastened and the curtains down, except in the kitchen. The neighbors remarked this as a strange way for people to act. One night the neighbors were startled hy hearing a call for help. Several men hastened to the house and found that the machinist alluded to had piled up a lot of kindling-wood in the center of the room, and was preparing to bind his only son upon it and burn him. The insane man, when locked up, raved, tore his hair and clothing, and destroyed one of the wooden benches in his cell.

The case illustrates not only the difficulty with which facts bearing on the diagnosis of insanity are obtained from laymen, but is evidence also that the test set up by Dr. Fordyce Barker‡ as decisive of the genuineness of an insane delusion, namely, that "when persons are acting under an insane delusion they have a steadfast, unflinching, unyielding abiding faith in that delusion. That faith governs and controis their actions and they are not influenced either for or against the performance of the act by mental process. If one is so governed it shows that the delusion does not control the will and is not an insane delusion," is as utterly valueless as it is opposed to the experience of alienists.

Often in citing facts as evidence of insanity the physician is met with the theory that they are the offspring of eccentricity. As has been pointed out by Bucknill and Tuke* there are two varieties of eccentricity which are radically distinct. The first arises from an excess of individuality. With little regard for the opinions of others this variety of the eccentric man strikes out a path for himself in all matters of opinion and conduct. Such a man is endowed with more than the average amount of good sense and moral courage. He is farther removed from insanity than most of the people on whose fantasies and prejudices he sets a remorseless heel. He is in marked contrast with the members of the second class whose peculiarities are the result of weakness of judgment.

Between these two classes the line of demarcation is so well marked that confusion of them, as in the following evidence by Dr. Kempster: "Eccentric people or persons possessing marked traits of character, or illy balanced, are not as liable to outbreaks of insanity as those who are more steady and staid in habits or character, for the reason that an eccentric person is not so easily affected by the jeers and taunts of his opponents, and not so easily affected by the ups and downs of life," is unpardonable from a scientific standpoint. The first class are preeminently sane, the second class are either insane or of insane temperament. For the peculiarities of the first class good reasons can be given. The bizarre actions of the second class are based on equally bizarre logic.

Ill-health is of very limited value as a test of insanity; in some acute types it may be corroboratory evidence when added to much stronger evidence, but in chronic cases and in the dubious cases, as a symptom it is totally worthless. The majority of the chronic insane never need nor receive medicinal treatment. The statements so often made that a certain criminal has enjoyed good health is no evidence that he is or is not insane.

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*Insanity and its Treatment.

†American Journal of Neurology and Psychiatry, May, 1882.

‡Report of the Guiteau trial, Dec. 8, 1882.

*Psychological Medicine, p. 443.

†Report of the Guiteau trial, page 1535.

Incoherence is of great value as a diagnostic point. It may be extreme or may only amount to the incoherence with which Dickens endows Mrs. Nickleby and which is not without the limits of sanity. Speaking to oneself is a common phenomenon among sane people, yet its sudden occurrence without apparent cause gives a hint as to a concealed delusion.

In the case of a man tried for murder in Canada, Dr. H. Howard[*] cited low temperature as a corroboratory evidence of insanity. Ulrich[†] has reported a case of progressive paresis in which there was a temperature of 91.3°F. and a case of melancholia in which the temperature was 83.4 F. Tilling[‡] reports a case of primary monomania in which there was a temperature of 89.6° F.; one of melancholia attonita in which there was a temperature of 82.4°F. and two cases of progressive paresis in which the temperature was 83.3° F. and 81.5° F. respectively. Bechterew[§] reports one case of senile dementia in which the temperature was 87.8° F.; two cases of progressive paresis in which the temperature was 93.2° F. and 86.9° F. Ireland[||] reports a case of idiocy in which the temperature was 82° F. Lowenhardt[**] reports two cases of insanity in which the temperature was at various times 87.5° F., 89.6° F., and 90.5° F. Mendenhall has reported a case of dementia in which the temperature was 90.5° F. Zenker[††] has reported nine cases of insanity in which the temperature fell easily; in three cases as low as 90.6° F., and in one instance as low as 87.06° F. As a corroborative symptom of the existence of nervous disease, this question of low temperature may be of value. Any suggestions on this topic, however, would be as yet premature.

Symptomatology is, however, best considered as related to each individual form of insanity. It is easier to demonstrate the existence of a psychosis than the existence of insanity. It is easier to reason that certain symptoms point to certain psychoses, and that a man having one of those psychoses is insane, than to reason that a certain man is insane because he has certain symptoms. A physician should always be prepared to defend his diagnoses in the courts, and we can do this best by specializing rather than by generalizing. Insanity is as broad a term as fever, and it is foolish to attempt to fit all types of insanity into the same Procustean symptomatological bed. This will confuse the physician in his diagnosis, and he will confuse himself and the court when he attempts to justify that diagnosis.

The student of psychiatry is therefore brought face to face with an important problem. It is the same problem which has confronted other scientists; one upon whose solution depends the question whether psychiatry shall be a disjointed mass of facts or a well-organized system. This problem is that of

CLASSIFICATION.

This subject is of interest from many standpoints, and as authors differ markedly, it is best to examine all the classifications which have been proposed and the principles on which they are based.

Hippocrates recognized four types of cerebral affection: mania, in the sense of raving madness; melancholia, meaning in a general way depression; paranoia, meaning both what is now called dementia and types of insanity with weakened judgment; and phrenitis, a febrile delirium. Celsus mentions three types of insanity: one accompanied by fever, one without fever, due to black bile, and accompanied with sadness, and a third type which he divided into two varieties, one of evident partial insanity, and the other in which the whole mind was affected. Galen made four types of insanity—dementia, imbecility, mania, and melancholia.

The ancient classifications therefore recognized three principal conditions: excitement, depression, and destroyed or congenitally deficient mentality. These classifications were based on symptoms, and are at least fully equal to many now in use in Great Britain and the United States.

The modern authors have made classifications based on different and widely distinct principles. These principles of classification are: the psychological, or that based on the part of the mind affected; the symptomalogical, or that based on symptoms alone; the ætiological, or that based on ætiology alone; the patho-anatomical, or that based on the pathological anatomy alone; the sympto-ætio-pathological based on the ætiology, pathology and symptomatology, which is the most modern and it may be said the most natural, based as it is on clinical phenomena.

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[*] The philosophy of crime, insanity and responsibility, p. 34.

[†] Cited by Bechterew, St. Petersburg Medicinische Wochenschrift. 1879 and 1881.

[‡] Cited by Bechterew, Op. cit.

[§] Op cit.

[||] Journal of Mental Science, April, 1882.

[**] Allgemeine Zeitschrift für Psychiatrie, 1868.

[††] Journal of Mental Sciences.

Sauvages* divided insanity into hallucinations, morositates and deliriæ, which was a purely symptomatological classification.

Vogel's classification, differing in terms, had the same basis.

Linnæus divided insanity into ideales, imaginarii and pathetici; a purely psychological classification.

Cullen's classification was symptomatological. He divided insanity into amentia, melancholia, mania and oneirodynia. Melancholia meant partial insanity. Mania, on the other hand, meant general insanity. The early nosologists recognized insanity as a neurosis, but later on the metaphysical spirit caused insanity to be considered *sui generis* and unlike other morbid manifestations. This latter idea long maintained its hold and even now is not entirely destroyed.

Arnold† adopted a psycho-symptomatological classification in which the psychological element was enormous. He divided insanity into ideal, notional and pathetic insanity. There were four subdivisions of the first class; eight of the second, and sixteen of the last. Hallucinated lunatics belonged to the first class, delusional lunatics to the second. This was too finical a classification and it is obvious that one lunatic might present symptoms entitling him to be placed in three classes.

Pinel claimed, and in this he was undeniably correct, that the course pursued by the naturalist should be followed. He divided insanity into mania, melancholia, dementia and idiotism. Melancholia was still used in the sense of partial insanity. His most valuable contribution to nosoiogy was the conception of a reasoning mania, or as he phrased it, *mania sine delirio*. Idiotism was not idiocy, but an advanced stage of dementia.

Esquirol‡ extended and improved this classification. He divided insanity into lypemania (melancholia), disorder of the faculties referred to one or a limited number of objects, and dominated by depression; monomania also limited to one or a few objects accompanied by excitement and the predominance of a gay and expansive feeling; mania, extending to all kinds of objects and accompanied by excitement; dementia where the organs of thought had lost the energy and strength requisite for their functions; imbecility and iodicy where the defects were due to congenital conditions. The vices of this classification were that it confounded emotional and intellectual conditions simply because they were depressive or exalted.

Conolly* regarded insanity as divisible into mania, melancholia and dementia. According to him all forms of mental disorder are dependent upon one of three states of the nervous system; increased, diminished, or unequal excitability.

Laycock's† classification was a purely physiological one based on the reflex physiological ideas formerly so popular.

The pathological classifications, those of Parchappe, Voisin, and at one time Falret, are based on the theory that upon gross pathoanatomical changes were dependent the various psychoses. This theory is erroneous. It was so seen by Falret before his death and he in consequence finally adopted a symptomatological classification.

Heinroth taught that insanity was a disease of the mind. His classification, despite these views which linked him to the middle ages, was curiously enough regarded by Prichard as the most complete system which could be formed. It was merely psychological.

Prichard divided insanity, on a similar principle, into moral insanity, or pathomania, and intellectual insanity, under which latter term was comprehended mania, monomania, incoherence and dementia.

Bucknill† divided insanity into intellectual, emotional or volitional, but was fully aware of the difficulties of this classification.. He‡ has since proposed the following classification:

Classes of psychical phenomena:

1. Mania.
2. Melancholia.
3. Dementia.

Sub-classes of psychical combinations and transmutations:

1. Melancholia simple.
2. Melancholia with excitement.
3. Melancholia with stupor.
4. Mania and dementia alternating.
5. Mania simplex.
6. Mania with depressing emotions.
7. Mania intercurrent with melancholia.
8. Mania intercurrent with dementia.
9. Mania intercurrent with sanity.
10. Dementia simple and primary.
11. Dementia consecutive to mania and melancholia.

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*Nosologia Methodica.

†Observations on Insanity.

‡Maladies Mentales.

*Cited in Psychological Medicine, p. 33.

†Unsoundness of Mind in Relation to Criminal Acts.

‡Psychological Medicine, p. 798.

12. Dementia congenital, idiocy and imbecility.

Orders of pathogenetic relations:

1. Simple insanity, idio-encephalic.
2. Allied insanity.
3. Sequential insanity.
4. Concurrent insanity.
5. Egressing insanity.
6. Metastatic insanity.
7. Climacteric insanity.

Genera of pathogenetic relations: Simple insanity:

1. Insanity from hereditary predisposition.
2. Insanity from moral influence.
3. Insanity from overwork.
4. Insanity from direct cerebral injuries.
5. Insanity of general paralysis.

Allied insanity influenced by other diseases, but independent:

1. Insanity with cardiac disease.
2. Insanity with pulmonary disease.
3. Insanity with enteric disease.
4. Insanity with renal and vesical disease.

Sequential insanity caused by other diseases which have subsided:

1. Insanity following on idiopathic and exanthematous fevers.
2. Insanity following inflammations, as pneumonia.
3. Insanity following injuries to the cerebro-spinal axis, apoplexies, etc.

Concurrent insanity caused by other diseases and morbid conditions which continue to exist:

1. Insanity from cachexias.
2. Insanity from epilepsy.
3. Insanity from chorea.
4. Insanity from alcoholism.
5. Insanity from masturbation.
6. Insanity from starvation.

Egressing insanity growing out of the former disease of which it is an exaggeration:

1. Insanity egressing from hysteria.
2. Insanity egressing from ecstacy.
3. Insanity egressing from hypochondriasis.

Metastatic insanity—insanity from the shifting or ceasing of other diseases or suppression of discharges:

1. Insanity from rheumatism.
2. Insanity from erysipelas and dermatoses.
3. Insanity from suppression of habitual discharges, hæmorrhoids or ulcers.
4. Insanity from suppression of the catamenia.

Climacteric insanity:

1. Insanity of pregnancy and the puerperal state.
2. Insanity of pubescence.
3. Insanity of climacteric decline.
4. Insanity of old age.

This is a somewhat inconsistent etiological classification, and to it as to other etiological classifications there is this objection: that a cause often produces more than one effect. That is, the types of insanity produced by the same cause may be widely different.

Van der Kolk[*] and Belhomme[†] divided insanity into idiopathic and sympathetic, the first originating in the cerebral organs primarily, the second from disorders of other organs of the body.

Dr. P. Berthier[‡] claims that classification should depend upon the clinical analysis of the cases. According to him, such analysis should group insanity into the three following orders: First, the delirium may be only an accident in the ordinary pathology analogous to the delirium of fevers; second, the delirium may be allied to general or local morbid conditions, epileptic, paralytic, chronic, puerperal, etc.; third, the delirium may be independent, existing in itself, possessing fundamental characters which can change only of themselves. There are then the following psychoses:

Teratomania: Indigence or native rarity of ideas, nullity or puerility of sentiments, weakness or passive obstinacy of the will.

Zoonomania: Obtuseness or acquired poverty of ideas, frivolity or acuteness of the sentiments, effacement or vacillation of the will.

Holomania: Instability with precipitation, and exuberance of the ideas, anarchy of the will.

Plexomania: Confusion and absurdity of ideas, anxious perplexity of sentiments, oppression of the will.

Logomania: Delirium fixed but logical in ideas, change of feelings, domination of the will.

Physiomania: Sudden eclipse of reason, obscuration of the feelings, automatism of the will.

Stoecliomania: Eccentricity or apparently plausible exaltation of ideas, versatility with perversion of sentiments, aggressive and whimsical predominance of the will.

Polymania: Which is an admixture of the other psychoses.

While it is true, as stated by Dr. Berthier, that pathology has only outlined a few psychoses, and ætiology has tended to produce prolixity from the interaction of causes, it is not true that psysiology and anatomy have thrown no light on cerebro-psychical action. Dr. Berthier seems to be ignorant of the work of Meynert. His classification is not purely clinical, as he claims, but is largely psychological and ignores entirely the existence of physical symptoms. The existence of one type alone, progressive paresis, is a potent argument against the classification.

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[*] Considerations sur l'Appréciation de la Folie.

[†] Mental Diseases.

[‡] L'Union Medicale, September 1, 1874.

The 1867 International Congress* of Alienists adopted the following classification:

1. Simple insanity, which comprehends mania, melancholia, monomania, circular insanity, mixed insanity, delusions of persecution, moral insanity and dementia consecutive to these.

2. Epileptic insanity: insanity produced or accompanied by epilepsy.

3. Paralytic insanity or dementia; a true morbid entity.

4. Senile dementia; resulting from old age.

5. Organic dementia, which includes all varieties of dementia other that those mentioned.

6. Idiocy of which imbecility and weakness of mind are two varieties.

7. Cretinism which is associated with a vicious conformation of the body. The weakness of this classification is shown by the adoption of the titles "ill-defined forms" or "other forms to include all varieties of mental alienation which would seem impossible of classification under the forgoing heads."

Griesenger† has endeavored to classify insanity as it occurred in (1) states of mental depression; (2) states of mental exaltation; (3) states of mental weakness. Under the first class was comprehended hypochondriasis and melancholia. Under the second class mania and monamania. Under the third, chronic mania, dementia,idiocy and cretinism. While of advantage this classification finds a stumbling block in the existence of the clinical form, progressive paresis. It also fails to recognize the close relation between certain exalted and depressing states.

Maudsley divides insanity into intellectual or ideational and emotional or affective. The last type includes reasoning mania, simple melancholia, and moral alienation proper. To this there is the objection that a greater gulf exists between the forms of the second type, than between some of these latter and the first type.

Von Krafft-Ebing* divides insanity into Psycho-neuroses,psychical degenerative states and cerebral diseases with predominating psychical symptoms. The psycho-neuroses are divided into: A. Primary curable forms; melancholia, mania and dementia. B. Secondary incurable conditions of psychical weakness, comprising: 1. Secondary chronic mania, a sequel of uncured primary forms. 2. Terminal dementia.

The psychical degenerative states are divided into: 1. Constitutional affective insanity (folie raisonnante). 2. Moral insanity. 3. Systematized insanity. 4. Epileptic insanity. 5. Hysterical insanity. 6. Hypochondriacal insanity. 7. Periodical insanity.

The cerebro-psychoses are divided into: 1. Progressive paresis. 2. Cerebral syphilis. 3. Chronic alcoholic insanity. 4. Senile dementia. 5. Acute delirium. This is a decided advance, but there is still a tendency exhibited not to proceed from the individual psychosis to its relations to other psychoses, but to classify on certain generalizations. The series takes no cognizance of the insanity of pubescence.

Morel† has made a valuable etiological classification. He divides insanity into: First, Hereditary insanity. A. Those of congenitally nervous temperament. B. Those whose insanity is indicated by insane acts rather than insane conversation. C. The transition state between these last and idiots and imbeciles. D. Idiots and imbeciles. Second, Toxic insanity; caused by A. Alcohol, opium, lead, mercury, etc. B. Insufficient or diseased food. C. Marsh miasm or the geological constituents of the soil. Third, Insanity produced by transformation of other diseases. A. Hysterical. B. Epileptic. C. Hypochondriacal. Fourth, Idiopathic insanity. A. Resulting from progressive weakening of the intellect by chronic disease of the brain and its membranes. B. Progressive paresis. Fifth: Sympathetic insanity. Sixth, Dementia, a terminal state.

Skae's‡ classification is an artificial extension of this.

Luys§ classifies insanity as it is the result of hyperæmia, of anæmia, of both combined in different cerebral regions, or of cases where the circulatory troubles are subordinated to cerebral disease or defect.

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*Journal of Mental Science, 1870.
†Mental Pathology and Therapeutics.

*Lehrbuch der Psychiatrie.
†Traité des Maladies Mentales.
‡Journal of Mental Science.
§Maladies Mentales.

W. A. Hammond,[*] although holding the modern view of insanity uses only a psychological classification.

Spitzka[†] has proposed a classification based on the same principles which govern the demarcation of ordinary diseases. That is the logical association of the clinical phenomena, the pathology and the etiology. The classification given by him was intended rather as a hint toward correct classification than a complete system. His classification is purely clinical. It comprises: 1. Monomania. 2. Chronic mania with confusion of ideas. 3. Chronic mania with imbecility. 4. Circular insanity. 5. Periodic insanity. 6. Epileptic alienation. 7. Hebephrenia. 8. Katatonia. 9. Progressive paresis. 10. Senile insanity. 11. Acute mania. 12. Lypemania (melancholia). 13. Terminal dementia.

Kahlbaum[‡] has proposed a similar classification.

The one I shall use is slightly modified from that of Spitzka and is more complete. It is as follows: 1. Primary monomania. 2. Chronic mania with confusion of ideas. 3. Chronic mania with imbecility. 4. Idiocy. 5. Imbecility. 6 Secondary monomania. 7. Circular insanity. 8. Recurrent insanity. 9. Epileptic insanity. 10. Hebephrenia. 11. Lypemania. 12. Katatonia. 13. Acute mania. 14. Progressive paresis. 15. Senile insanity. 16. Dementia.

This classification is based simply on the clinical phenomena presented by each form. That it is perfect or complete it would be the highest presumption to claim.

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The Regulation of the Medical Practice.

BY DR. AMOS CROSBY, ALBION, MICH.

Paper read before the Calhoun County Medical Society.

MUCH has been said and written during the past few years upon this subject. It has been a serious question with the profession as to what are the best means to be used to protect its members and the people at large against the ravages of quackery. How shall the incompetent and unprincipled practitioner be dealt with? How shall he be shut out from the medical practice? How shall the people be able to decide between the competent and honorable practitioner of medicine and a charlatan? It can be readily seen that in no other profession can quackery be so easily and so successfully practiced as in the medical profession. In no other profession or calling does so little depend for success in securing patronage upon real professional knowledge and ability as in ours. More especially is this the case as regards the general practitioner. The people do not seem to be prepared to judge of the qualifications of those who offer their services as practitioners of the healing art. They are too apt to judge the medical man by what he assumes to be, rather than by what he really is. Comparative ignorance with bold scheming and low cunning often succeeds better than knowledge and skill.

How shall we remedy these evils? This is a difficult question to answer, but it seems to me a step can be taken in the right direction by requiring the periodical examination and registration of all medical men. Such a course, I think, would conduce both to the interest of the honorable and conscientious physician and to the welfare of the people. As to the construction of a board of medical examiners, I have no definite plan to offer, though I think a good one has been proposed by Dr. Baker, secretary of our state board of health, in an article published in the *Physician and Surgeon* of Ann Arbor, Mich., for November, 1880, to which article I would most respectfully refer.

By some such medical examining board, I would have all examined who are now engaged in the practice of medicine and all who are about to commence such practice, whether regular, homœopath, eclectic or Indian doctor; the board to make such examination thorough and comprehensive. It should be made to include anatomy, physiology, ætiology, pathology, chemistry, therapeutics, materia medica, practice of medicine, surgery, etc. Those who desire to be examined as specialists should receive such examination.

The general practitioner, especially if he has been some time engaged in practice, I think, ought to be required to show to some extent how well he has kept pace with the advanced views and improvements of the times. While it is true that the judicious practitioner, will not, and should not embrace every new theory that is advanced, nor adopt at once every new remedy suggested or plan of treatment proposed he should nevertheless keep himself well informed as to what is being said and done in the medical world. This he should do in order to "prove all things and hold fast that which is good."

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[*] Nervous Diseases. Edition of 1876.

[†] Medical Gazette, May 15 and 29, 1880.

[‡] Die Katatonie.

After examination each candidate should receive from the examining board a graded certificate showing his proficiency in all the branches of study embraced in such examination. For instance if a scale of one hundred is adopted and the candidate is perfect in anatomy he should receive credit accordingly, if on the other hand he is only half as deserving, the number 50 would designate his standing. In like manner go through the whole list. The board also to make any remarks as to special qualifications of the candidate or in regard to any other matter which they should deem to be right and proper. The justness as well as the advantages of such a course, it seems to me, can be readily seen. There is a great diversity of talent as well as of tastes in the medical profession. Some like the science and practice of medicine and become in this department intelligent and skilled practitioners, who have little taste for the study or practice of surgery. On the other hand there are those who have a special fondness and aptitude for the study and practice of surgery and use their time and talents in this field of labor to the exclusion somewhat of the other departments of the profession. Again there are others who devote their time to special subjects, such as diseases of the eye and ear, gynecology, etc. The plan I propose gives all an opportunity to receive credit for all and just such knowledge as they may possess in whatever direction their energies shall have been turned.

I would not only have medical men examined by a competent medical board and receive certificates, but would require of them to put these certificates on record in the clerk's office of the county in which the applicant lives and expects to practice. A book should be provided for such record with suitable index so that the copy of each certificate can be easily found for examination when thought necessary. This record should be open to the inspection of all. And thus any one who desires can easily acquaint himself with the recorded standing of all the physicians of his community. It would seem to me that no physician can reasonably complain of such a course as the one I have marked out, and it might be of much service to the citizen when he desires to select some one whom he can trust to prescribe for himself or family, when sick. Thus in a great degree at least he can, if he will, discriminate between the well informed physician and the charlatan.

Moreover were such a course pursued, people by taking the little trouble necessary to examine such record, could prepare themselves to select to better advantage the kind of talent they were in need of for the particular occasion. Thus in cases of accident where a limb had been fractured or some other injury sustained, one who had evidently given special attention to the study and practice of surgery could serve them most acceptably. On the other hand cases of disease, those ailments that are almost continually coming under the observation of the general practitioner, the nature, cause and treatment of which have engaged very nearly his entire thought, study and attention, he is prepared (other things being equal) to treat with better skill than the the best qualified and most accomplished surgeon. Some perhaps may differ with me here, but I think I speak the truth; our time and opportunity are too limited, life is too short, and the field too broad for any one man to become thoroughly informed in every thing that may be included in the term, the science and art of medicine. And especially is this the case with those of us who have to depend upon our professional work for the means to support ourselves and families.

As before intimated I would not only require the physician to be examined before he commences to practice, but also to submit to such examination at regular stated periods afterwards. As regards the advantages to be derived from such a plan, in addition to what I have already said bearing upon this part of the question, I would favor such periodical examination, first, because of the influence which such a course would tend to have upon the individual physician and the profession.

The success of the physician in securing and maintaining a good and lucrative practice depends so much upon qualifications aside from professional acquirements and skill, that many seem to depend almost entirely upon the former, to the neglect in a large degree of the latter. It seems much easier for some of us to be social and agreeable and to practice the other devices that are used to obtain patronage, and to spend our time in this direction, especially when it pays well rather than in our libraries and offices in the acquirement of that knowledge which shall fit us to perform honorably and intelligently the duties of our calling. It is not my purpose, however, to ignore or to speak lightly of the social graces. It is the duty of every medical man as far as lies within his power to be a polished and cultivated gentleman, but he has other duties which he need not neglect, and which he perhaps will not, if proper incentives are given for their performance. Let him understand that at certain stated periods he must appear before an intelligent medical examining board to give an account of his stewardship, to show how he has improved his spare moments since the last previous examination, and he will feel that there is a force urging him on which he can not resist. All men like to be well thought of. Medical men like the good opinion of other medical men. This is proper and right. Says a certain writer: "The young man is not far from ruin who can say without blushing, 'I don't care what others think of me.'" And the maxim applies equally well to older men. Of course the opinion of others is not to be our chief guide, but it is one of the influences which have been wisely designed to keep us in the path of duty and to inspire us to better and nobler deeds.

The plan suggested above would tend much to encourage the true physician and industrious student, and, as it seems to me, to drive the ignorant charlatan from the field. Ignorant and unprincipled men, who can now, with impunity, and for a time successfully, practice their deception upon an unsuspicious and credulous people, would be very reluctant to appear for examination, at stated periods, before a competent medical board.

Another reason why I am in favor of the periodical examination of medical men is, that such a course gives the best means to understand at all times their present standing. This, perhaps, might be especially favorable to the public. The rate of advancement is not the same with all who are engaged in the practice of medicine. Some physicians improve their opportunities better than others. Some are always seeking information, and add to their stock of knowledge nearly every day of their professional lives, while others who start in the race equally well, and perhaps better, who even may have graduated with honor, are found at the end of twenty or thirty years to have made little or no progress during this long period of time. This latter class are apt to hold on to old notions and old ideas with a good deal of pertinacity. They seem to think that the good old way is always the best way, and that the introduction of anything new is a dangerous innovation. Now, a certain degree of conservatism is indispensably necessary to true success in any calling, and especially is this the case in ours; but that conservatism which comes of mental indolence and is the enemy of all progress, ought not to be tolerated by any member of the medical profession. This latter kind of conservatism seems to do more, in some communities, to foster and encourage quackery than almost anything else. There is a progressive movement in all the arts and sciences, and the medical sciences must and will keep pace with the other sciences. The more intelligent of the people are getting to recognize this latter fact. In an article published in *Harpers Magazine*, for October 1882, "On Medical Education in New York," the writer makes use of the following language. "In 1750 a body was dissected by students in New York, and in 1767 the first medical school was opened in the city. In no other department of science, art, or literature, has the advancement been more complete or more substantial than that which the medical profession shows between the opening of this first school in the city and the present time." The physician therefore who is not industrious and studious to the best of his ability must expect to be left far in the rear. No man has the right to aspire to the honorable and responsible position occupied by the physician except he be a lover of books, and can endure cheerfully the hard work and close application which are necessary to prepare him to perform intelligently the duties of his calling. It is the duty of every physician to give to his patrons the advantage of all the knowledge and the very best skill he can possibly acquire. The people have the right to know who are industrious and studious and who are not. They have the right to know who are the live men of the profession and who are the drones. The periodical examination and registration of all medical men would, in a large degree at least, afford them such an opportunity.

I would also allow the charlatan to proclaim to the people his wonderful knowledge and skill, but would require him to do this through other and more reliable means than those which he has heretofore used for such purpose.

The record of his certificate which he has obtained from a competent medical examining board will show most nearly, and probably most correctly, the extent of his acquirements. To this record let him appeal.

Having done this much I would turn all physicians loose upon the community. In other words, I would not at present try to put any further restriction upon the practice of medicine.

The American people are a jealous people as regards what they call liberty. They like to do as they choose in reference to all those things in which they themselves only—as they imagine—are particularly interested.

"What business," they ask, "is it to the physicians, whom we employ to treat us when sick, so long as we alone must take the consequences?" They look with distrust upon any means that is attempted to be used to interfere with the right or liberty of any one to offer his services to the public as a medical practitioner. They regard every move in this direction as made in the interest of the regular profession. Such a feeling on the part of the people must first, in a degree at least, be removed before any law can be enacted and rigidly enforced looking to the forcible restriction of the practice of medicine to those only who are well qualified to discharge the duties of intelligent and accomplished physicians. The people must be made to see that it is for their safety as well as for the interest of the medical profession, that incompetent and unprincipled men should not be allowed to hold themselves out as qualified and skillful physicians. Until they do thus see, it is useless, it seems to me, for us to try to secure the enactment of any law having for its object the forcible exclusion of ignorant and unworthy men from the profession. Such laws ought really to originate with the people whom they are designed to protect.

Insanity Defined.

BY C. H. HUGHES, M. D., ST. LOUIS, MO.*

AN interesting and well-written lecture on the subject of insanity in the November number of the LANCET, by Dr. Jas. G. Kiernan, contains a reference to the present writer's definition of insanity, which, taken without its context and the purpose in view, would not be properly appreciated.

For medico-legal purposes and in order to make one's meaning clear to the comprehension of judge and jury, it is commonly the custom of alienists when on the witness stand to so define insanity in contra distinction from those congenitally unsound states of mind usually regarded as feeble-mindedness, or imbecility and idiocy, as to make the distinguishing characteristics to consist in a change of character brought about by disease. The writer's custom has been to further qualify the definition by the expression that disease of the brain implicating the mind in the disorders called insanity not only changes the natural character of the person, but it so specifically changes the normal mental display, that mind is recognized as out of harmony with its surroundings, and often this disharmony is without an adequate external cause.

"The beginning of all disease is altered molecular action, either in the blood, which nourishes a part or organ and which is its life, or in the nerves, which constitute the soul, so to speak, of organic function. Next follow more profound changes, which we recognize as structural, and marked derangement of organic functions; we then have recognizable and appreciable disease. When there is organic disease, *i. e.*, either a functional or structural disease of a whole organ, we have change in its natural manner of acting, whether it be in the heart, the lungs, the liver, the abdominal or thoraic viscera, or in the cerebro-spinal axis.

"Wherever it may be, the natural manner of action is changed, and the organ or part involved is neither in harmony with itself naturally nor with its surroundings in the organism.

"So it is with the lower and higher centers of the brain; if the former are affected, paralysis results; if the latter, psychical disturbance.

"So that insanity conforms to the law of all other diseases in being a departure from natural function due to morbid invasion, and differs from them only in the fact that the invaded territory is that which is occupied especially by the mind."—*Old Essay by the Writer.*

Disease of the brain implicating the mind is no exception. Like the liver, the lungs or the heart, when morbidly affected, its movements are not naturally adjusted to its environments, either in the system or without it.

If the insanity be congenital, which is rarely the case, as in *primaire verruchtheit* or high grade imbecility, teratological defect as it has been recently termed, the standard of comparison as in any other disease, is the normal type of the family before the insane departure began. People are rarely born with active insanity, though they often come into the world with the fatal heritage of an insane temperament—a psychopathic endowment which is a latent morbid magazine requiring only a little friction (such as only makes stronger more stable minds) to cause a neurotic explosion.

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*Editor Alienist and Neurologist; Author of Cursory View of Insanity, etc. Late Supt. and Phys. Missouri State Lunatic Asylum, Honorary Member of British Med. Psych. Ass'n.

We then recognize the change of character and disharmony with surroundings, in the brain's working.

Whenever practical, definitions should always be sufficiently definite to define.

"Insanity defined upon the basis of disease is thus distinct from idiocy and imbecility, by the fact of comparison of the individual in the two latter conditions with himself revealing no change in mental manifestation dependent upon disease, and no disharmony with his natural self and surroundings in consequence thereof. What the idiot and imbecile are now they have always been, namely, mentally deficient, defective, and deranged, if you choose. The eccentric person likewise, though differing from other men in general, has not changed when compared with himself, and so also those 'great wits to madness near allied'—those children of genius renowned for doing things so unlike and beyond the rest of mankind. It is natural for them to soar above the common flock and be singular.

"If any other standard than self-comparison were adopted it would not be difficult to make most men out insane, for individuals differ as much from each other as nations do. Indeed, a great English philosopher, observing that there is something odd in most men, called them all in a degree mad. He had not a true conception of insanity as we have attempted to portray it, based on change of character dependent on disease.

"Some writers on the jurisprudence of insanity have included idiocy and imbecility in heir classification of insanity, while others have drawn a line of demarkation between the congenital deficiency of idiocy, the arrested development of imbecility, and the disease insanity. Blandford considers imbeciles and idiots of unsound mind, but 'not insane in the ordinary sense of the word.' Maudsley, I think, does not discuss the subject, and Esquirol draws the distinction we have given, based upon the difference between acquired cerebral disease and congenital brain deficiency."—*Old Essay of Writer.*

Primaire verruchtheit comes under the head of congenital deficiency. It is inherent defect of brain.

Of course, if we wish to lay ourselves open on the witness stand so that sharp and logical attorneys may pick us to pieces, we will define insanity differently, and find not only the idiot and the imbecile included but the eccentric man, and the man of genius, those "great wits to madness near allied."

Neither malformation nor disease of brain *in esse* constitutes insanity. The disease insanity is recognizable in its psychical, (often aided but sometimes not, by its physical,) symptomatology, as diseases of other organs than the brain are recognized through their symptoms. The local morbid structural changes may or may not be apparent. Sometimes we only detect them post mortem, but that is not the time when we make available diagnoses. The brain change in insanity during the life of the lunatic is the inferential part, a most reasonable inference founded on cadaveric examinations and often upon the concomitant physical symptoms.

Quite often the physical change is a present demonstration in the physical evidences of brain disorder, but not always. Often we would never suspect the head to be at fault but for the psychical evidences of cerebral disorder. When a man's mind goes wrong cranial malformations are suddenly discovered which were not detected before, and after the death of the patient and the autopsy, the external malformation is found not to have impressed the cerebrum, though disease within it may be found. We know by anticedent post mortem observation mainly, that the brain is diseased in insanity, because the majority of chronic insane brains reveal organic lesions on the dissecting table or under the lens. But we should be careful not to make disease of brain the essential definition instead of the explanatory cause of the insanity because a man may have disease of brain and yet not be insane as in aphasia, hemiplegia, epilepsia, chorea, etc., as he may likewise have cranial malformation, either congenital or acquired, without insanity. The sane world is made up of singular shaped heads. We have only to examine them carefully to be surprised at the amount of sanity contained in some most anomalously shaped cranii. You cannot always tell what kind of a person the tenant of a building is by surveying the tenement, though you may sometimes correctly infer.

Let us be careful that we get a little nearer accuracy in our definitions than some of our literary confreres, notably Charles Lamb, who defined insanity to be "a disproportionate straining or excess of one or more of the mental faculties," which in this rapid age of divided labor, electric light and innumerable incentives to over-mental strain and specially concentrated thought, would include a large part of the race.

If we make a simple "perversion of the mental relations of an individual to his surroundings, or what from birth, education and circumstances might be expected to be his surroundings and dependent upon malformation of brain" an invariable evidence of insanity, in order to include in our definition congenital forms of brain defects, we make the definition sufficiently comprehensive to place us at great disadvantage before the courts and let into the arena of mind dethroned many sane minds. We then make a distinction between sanity and insanity without a difference.

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The Etiology of the Respiratory Disorders of Infancy.

READ BEFORE THE CALHOUN COUNTY MEDICAL SOCIETY BY KATE LINDSEY, M. D.

ALL authors on the disorders of infancy have noted the fact that during the first year of life the greatest mortality is due to digestive disorders. After that time up until four or five years of age the relative percentage of respiratory disorders increase while the percentage of digestive disorders decrease.

Dr. Jacobi estimates that forty per cent. die of digestive disorders during the first year and but ten per cent. of respiratory disorders. In the second year nine per cent. die of digestive disorders and thirty-six per cent. of respiratory disorders.

Miegs and Pepper remark that the tendency to an increase of bronchitis and other respiratory disorders is very marked during the last six months of the first year and continues through the two succeeding years.

There must be something in the environments of the children during that period to account for this increased mortality from respiratory disease, for, I think, every one will admit that the breathing organs of a six months or year old child must be stronger and better able to resist morbid influences than those of a new-born infant. Prolonged exposure to cold and dampness, chilling of portions of the surface, especially the feet and thorax, sudden and rapid changes of temperature, bad ventilation, irritating gases, etc., have been noted as the most definitely ascertained exciting causes of these diseases. The infant, after birth, is often exposed to the danger of contracting a cold from chilling of the surface during the first bath. Coming from an even temperature of nearly 100°, it must be a great shock to its delicate organization to be precipitated into an atmosphere 20° or 30° lower and exposed in the often tediously long process of washing to the rapidly cooling process of evaporation. The danger from this source can be obviated to a great extent by using vaseline or some other mild ungent, as an inunction and wiping rapidly with two or three soft rags. The surface will then be found red, warm and soft, instead of cold, blue and clammy, as too often happens after a water bath. The infant will not be so likely to begin life with a nasal catarrh or bronchitis.

The usual style of infants' dress is faulty from the fact that it is unevenly distributed over the body and almost wholly supported from the waist.

The neck, arms and thorax usually have but one fold of cotton covering. The abdomen four double cotton bands extra, belonging to pinning blankets and skirts. The pelvis eight or twelve folds in the form of a diaper and four more half flannel in the form of slip and skirts. The lower extremities are sufficiently protected by the long drapery.

This absurd style of dress, senseless as it is, does not expose the infant's health as is recklessly done a few months later. During the first months of life the infant is wrapped in a warm blanket or shawl and carried in the arms of the mother or nurse, or else reposes in a warm crib.

The time comes, however, when it must try its own power of locomotion. The long skirts are exchanged for short. The lower extremities that have been warmly wrapped up in their folds are covered with short stockings, reaching a little below the knees, thin shoes on the feet, bare dimpled knees and thighs. In this æsthetic dress the baby is set down on the floor to learn to creep among the cold draughts that circulate over the floors of so many American homes. The diaper which during the period of long clothes, when wet and neglected, acted like a hot poultice or fomentation overheating and relaxing the tissues now, when wet, acts like a cold compress carrying off the heat by evaporation. The increased drooling occasioned by dentition often causes the neck and thorax to be covered in another cold compress. What marvel that colds, often terminating in fatal bronchitis or catarrhal pneumonia, should prevail at this period, when this change in dress is often made during the damp, cold spring or autumn weather? I have even known it to be made in midwinter.

After a few months more the diaper will be dispensed with also; and the child being considered too young to wear drawers, children two or three years old will be found out of doors on cold, damp days, with the whole lower portion of the body exposed to the cold, chilling atmosphere at the season of the year when parents and older children have put on their thick knit underwear. Those children suffer most from this reckless exposure who inherit tendencies to tuberculosis, scrofula or syphilis, or any other congenital weakness of constitution due to disease or debauchery in the parents, as well as those debilitated by digestive disorders in the early months of life, or enfeebled by acute disease, especially whooping cough and the exanthemata.

City children and those confined most of the time indoors in overheated, badly ventilated rooms, when going out need extra protection.

That medical writers on diseases of children have noted errors in dress as one of the most patent excitant causes of respiratory disorders, may be ascertained by consulting their work on the subject. I give below one quotation from "Diseases of Children," by Miegs and Pepper, page 197. The author says: "We believe ourselves, from what we have seen in this city during the last thirty years, that the most fruitful cause of bronchitis, pneumonia, croup, and angina in early life, is the style of dress almost universally used for young children. This dress is entirely insufficient * * * and from the time the dress is shortened up until four or five years in boys, when happily the time for boy's clothes arrives, and throughout the childhood of girls, the child is thus unsufficiently dressed. * * * In this dress the child passes the day in the sitting-room heated to 68° or 70°. In the entries it is often found but 50° or 60°, even lower. * * * That this style of dress is incorrect, is proven by the fact that children who are usually dressed about the same in summer as in winter rarely suffer from colds when the thermometer ranges about 76° during the summer."

Such an emphatic statement from men who have the reputation for such long continued careful observations in this class of diseases, should I think be sufficient to call the attention of every general practitioner to a cause which is so potent in exciting respiratory disease, and it should also lead him to consider the best method for removing it, as it is certainly to a great extent preventable.

A little time spent in instructing mothers in relation to healthful diet, dress, ventilation and temperature of the rooms in which young children spend a great deal of time, would I think, be of as much value in preventing infantile mortality, and do as much for the advance of practical medicine as any learned monograph or long discussion on such hypothetical subjects as the identity, or non-identity of the false membranes of croup and diphtheria.

As the science of medicine advances, more attention is being given to the prevention of diseases, and less faith is felt in drugs as specifics and cure all.

Mankind first lost faith in amulet, spell and incantation. Every decade there is less trust in nature and a growing interest in preventive measures. In no class of patients and no other form of disease can less be expected of purely drug medication then in the respiratory disorders of infancy.

Preventive measures to be effective must be understood by the people, and it will be more and more the work of the coming physician to be a true medical adviser, and less a mere prescriber of remedies. Further it is not only the mortality from respiratory disorders among infants and small children that we have to consider, but also the number of adults who suffer from chronic bronchitis, laryngitis, pharyngitis nasal catarrh, and last but not least pulmonary phthisis, often due to the frequently recurring and neglected cold in infancy, and frequently terminating fatally in early youth or manhood.

The infantile members of society are entirely helpless, unable to act in self-defense. And from motives of philanthrophy, if no other, it would seem to be the duty of the physician to educate those who have them in charge to care for them in a proper manner physically, so as not only to relieve the children from unnecessary suffering and early death but to secure a healthful and useful life afterwards.

A Diagnosis.

BY DR. A. W. ALVORD, BATTLE CREEK, MICH.

Paper read before the Calhoun County Medical Society.

WHEN John Hunter was asked how he treated syphilis, he replied that he first sought for the proof of a chancre.

It is a marvelous thing that physicians should treat disease haphazard, and yet what intelligent practitioner is there with us to-day who does not, almost daily, have occasion to believe that many men in the practice care nothing for a correct diagnosis, provided they can satisfy the demands of a patron ignorant in medicine, whatever may be his acquirements elsewhere. The ignorant and designing trickster in medicine (and there are such whose walls display a diploma from a regular college) has a prolific field in the credulity of innocent people, since kind nature corrects so many of the mistakes of us all. Such are always well marked, however, and of them it is not necessary to speak, for finding on acquaintance they do not possess the confidence of their fellow practitioners, on account of their ignorance, they speedily become pirates, and every worthy doctor dreads to see their black flag heave in sight, for he knows that he must descend to their methods for the nonce and fight with them, or suffer his reputation to be smirched by their unholy tongues. I shall not have the faults of such men in mind as I make my plea for a perfect diagnosis, but rather the lack of otherwise good physicians.

Surgery may be called one of the exact sciences. There is no room for guesswork there, and he who tries it may look for speedy retribution, while in medicine a temporizing policy with half knowledge is not always so soon found out. But can an honest man take advantage of such a fact? Can such a one be considered a scientific gentleman? Once discovered, he takes his level where he belongs. No, gentlemen, this is not safe ground. Assuming to know what one does not, debases his better nature, destroys his self respect, and unfits him for truly scientific work, which is the fruit of patient, unwearying, painstaking labor.

There is no excellence without great labor. He who will patiently, earnestly work until he has conquered one exact fact and made it his own, is richer far than he who has spread himself out so thin over so much ground that he knows nothing well.

The habit of thinking accurately is worth very much to every one. To such, wonderful possibilities are open. For he who has conquered one subject has learned how to conquer all, and time only can check his advance. When this habit is once formed we pass on to conquer new subjects much more rapidly than heretofore.

We have learned how to think, study and work. But it is a sad commentary on the intelligence of the profession when such errors as the following are made by its regular members.

By one pneumonia was treated as inflammation of the bowels and turpentine stupes were freely used on the abdomen. By another, chronic catarrh of the stomach, which afterwards yielded readily to the German method, was pronounced cancer. A uterine displacement was called "the gravel," and the kidneys received a severe drenching. Suppression of the urinary flow was called retention and the physician presented a sad spectacle of surprise and chagrin when the introduction of the catheter brought none of the results he had so pompously promised. True, a little accurate knowledge would have saved him from disgrace, but he had not the knowledge, though it might have been had by placing the hand over the bladder.

But I will not multiply instances of failure to recognize the true condition of affairs; they have been often seen by most of you. Nor will I enlarge on the contempt felt for such by intelligent men in and out of the profession.

But is it nothing that a correct diagnosis is not made out when the fate of a human being depends upon it? Is it enough to satisfy you, as your case comes up before you while you review your work, it may be lying on your pillow for the last time, will it, I ask, satisfy you that you did not know when you might have known? It is too late when the life or good health has been sacrificed. An early correct diagnosis is your only true ground to occupy. The difficulties that stand in your way are often grave, you say. Yes I freely admit that. But there is no truer test of any man's claims to be an able physician than when brought face to face with some difficult, obscure case to give an opinion. We live in an age of progress. What was really difficult a few years ago is now rendered simple enough by the aid of the stethoscope, the microscope, the ophthalmoscope and laryngoscope. Chemistry, too, comes to our aid analyzing the excretions of the body, thus giving us a knowledge of the various secreting organs we could not otherwise obtain. In addition to all this the reading physician finds the new literature of the profession wonderfully prolific in hints and helps to a proper understanding of disease. Methods are improved. New facts are developed, and the intelligent physician of to-day stands on a ten-fold higher and stronger ground than the physician of 25 years ago. He can give a correct diagnosis where it was then impossible. He can promise more and fulfill that promise, too. Grave blunders are rarely excusable in the light of our present knowledge. It does not matter how obscure the case, if the physician brings to bear on it an enlightened mind well stored with that knowledge we all know to be so necessary, and if he approaches that case in the true spirit of scientific enquiry, skeptical as to every hint from another, leaving the ruts for others to travel in, and pushing for original thought, he will rarely with good judgment make a faulty diagnosis.

If the preparatory work of the schools has not been well done, and he must now be working on the foundation stones, of course he cannot build this superstructure. These thoughts would hardly be complete without a word on concentration of thought in each case. It is the lever, and a thorough preparation the fulcrum with which we remove the most difficult of obstacles to our success. But how can a man concentrate thought on a case if his mind is pre-occupied with horse-trading or horse-racing, or if his cupidity is such that he keeps planning how he can secure his fee? Alas, if these or any other things prevent him from bending his energies to the case in hand, the outcome of it all will be a doubtful diagnosis from a muddy brain which will most surely bring him only confusion. My plea shall be for better work from the beginning, and then with earnest application, a correct diagnosis will be made possible.

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Contagious Diseases—Government Protection Needed.

DR. H. B. BAKER in the Lansing *Republican* makes the following statement of facts of interest to all.—ED.

Permit me to ask your attention and the attention of the public and its representatives in Congress to the urgent need for legislation immediately on the assembling of Congress, which shall make an appropriation for the continuance of the immigrant inspection service, now partially sustained by the National Board of Health. By reductions in force and in pay that board has been able to continue the service until December 15, but after that time it will have to stop, unless Congress will immediately pass a bill or joint resolution which shall provide especially for the continuance of the immigrant inspection service. Experience would seem to suggest that it would not be wise to entrust the disbursement of the funds and the supervision of the service of the National Board of Health in preference to any other United States department of service.

During the 18 weeks ending September 30, 1882, there were inspected at Port Huron about 18,000 immigrants, and at Detroit about 23,000—nearly 41,000 immigrants at the two points. Of those who passed through Port Huron a large number had not been previously inspected; over 12,000 certificates of inspection from small-pox were issued at that port, nearly 8,000 immigrants having been vaccinated there during the 18 weeks, and thus that number protected from getting and spreading small-pox. At the two stations 178 sick in transit were found, 85 of whom had measles. This brief summary may convey an idea of the extent of the labor in this state; but the necessity for such a service may be apparent by referring to the incessant struggle which the health authorities throughout this and other states have had and are having with small-pox and other contagious diseases which, since the immigration has been so great, have been introduced at so many places and so frequently that it seems impossible much longer to prevent these diseases from becoming generally epidemic throughout this country, more particularly the northern and western states, where the immigrant and other travel is great. Thus, in Detroit a special meeting of the Board of Health was recently called to consider the question of closing the schools because of the prevalence of diphtheria. A late paper says: "Public funerals are forbidden in Boston, Mass., on account of the prevalence of diphtheria and other contagious diseases." In Cincinnati cases of small-pox have been so numerous it is alleged that the health officials have suppressed the facts in order to prevent a panic; but the number reported has been large.

Michigan has hardly been free from small-pox in the past year; and at many places, such as Grand Rapids and Detroit, the local health authorities have been almost constantly engaged in combating it until some time after the inspection service began. Diphtheria and scarlet fever have been constantly present in many parts of the state; and they break out at new places about as fast as they are controlled at others. Some of the contagious diseases are yet constantly being introduced, notwithstanding the government inspection, because the service has been mainly confined to preventing the introduction and spread of small-pox. The deaths from each of several of the other contagious diseases greatly outnumber those from small-pox. These several facts show the importance of not only continuing the immigrant inspection service with respect to small-pox, but also granting the protection of the United States government from the continuous introduction from abroad of other contagious diseases, especially diphtheria and scarlet fever. It is believed that neither small-pox nor the other communicable diseases are originated in Michigan, but are so continually being brought into the state by means of commerce and immigration, that neither the local nor the state boards of health are able to free the country or the state from these contagious diseases. The attempt is even more difficult than would be the case with the several fire departments if articles capable of spontaneous combustion were being thus frequently and generally introduced.

If local health authorities undertake to stop the introduction of disease, their best methods will cause delay to travel and interference with what seems to be of national concern. The expense, also, of the inspection, at Port Huron, for instance, is too great to be borne by that city, especially as the danger from the introduction of diseases at Port Huron extends to every part of the northwest as far as Manitoba. A large part of the small-pox in Michigan has been traced to Chicago; but without immigrant inspection Chicago gets contagious diseases by way of Port Huron, as well as by other routes. Port Huron is a port where great numbers of immigrants first touch United States soil, and it is a point where it is of great importance that there should be a thorough inspection and many primary vaccinations. Detroit is a point where it seems very desirable there should be an inspection station for inland inspection and surveillance; a few immigrants also first enter this country at that port.

Before the inspection service began, there were frequently importations of small-pox into this country and this state by immigrants; but since this service has been established its influence extends backward on the lines of travel, and is effective for good on board the ship on which the immigrant sails, and it continues to his destination and the necessary surveillance after his arrival at his destination; consequently the importations of small-pox have been very much less in number, because the knowledge that rigid inspection is enforced in Michigan and Illinois, etc., tends to make the examinations and vaccinations on board ship and at ports of entry more complete and thorough, and the local health authorities can be informed of the entrance of immigrants into their jurisdictions, and the public health be in some measure protected.

What is needed is that the immigrant inspection be continued and the inspectors directed to pay more attention than heretofore to scarlet fever and diphtheria and to the disinfection of all luggage believed to be infected with any disease especially dangerous to the public health. At the present time no person should take the risks of travel without the protection of vaccination. The vaccination of unprotected immigrants is needed not only for their own protection because unusually exposed to small-pox *en route*, but also to prevent them from spreading the disease broadcast throughout this country.

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Proceedings of Societies.

Seventh Annual Meeting of the Calhoun County Medical Society.

THE Calhoun County Medical Association convened in the council rooms at Battle Creek, December 5, 1882. Dr. Tomlinson, vice-president, occupied the chair. The members present were Drs. Crosby and Monroe of Albion; Dr. Seely of Climax, Dr. Case of Marengo, and Drs. Tomlinson, French, Kellogg, Lindsay, Stewart, Alvord, Fairfield, Paddock and Sprague of Battle Creek.

The society was honored by the attendance of Drs. Connor, Bradley and Carstens of Detroit, and of Dr. Hiland, Surgeon of the United States Navy.

The minutes of the last meeting were read and approved.

Dr. Seeley, formerly an honorary member, was proposed for active membership and duly elected.

Drs. Connor, Carstens and Bradley were elected to honorary membership and invited to participate in the discussions of the day.

Dr. Alvord, essayist for the day, read an essay on correct diagnosis, for which he received the thanks of the society and a request that a copy may become the property of the association.

Dr. Carstens thanked the society for its courtesy and expressed his approval of the sentiments expressed in the essay. Says he makes it a rule never to treat a case without first making a diagnosis. A lady called upon him a few days since, requesting him to treat her for hemorrhoids, but he told her he must first be sure she had hemorrhoids. She did not wish to submit to an examination and went away. He did not know whether she would return, but if she does she must submit to an examination before he will treat her.

Dr. Connor was grateful for the action of the society, and sympathized with the views just expressed. He recalled a case brought to him by a former student which had been under treatment for a time, without favorable results. There was pain which the patient described as being in the shoulder, and the student diagnosed rheumatism without an examination. He soon began to lose the use of his arms, and the student, now alarmed, sought Dr. Connor's advice. The history showed that the trouble began between the shoulders, from exposure to draughts, while heated. Examination showed the case to be one of myelitis, and, being placed upon proper treatment, he soon recovered. The student acknowledged his error in accepting the patient's statement without examination.

In another instance a specialist was about to remove an eyelid for epithelioma. The case came to him when he recognized the trouble to be a syphilitic tumor which was soon cured by proper treatment. He thinks we are liable to overlook important points in general conditions because of the great facilities we have for exact diagnosis. His mind was called to the fact by being with a physician who certainly knew very little of the physiology or pathology of the circulation, but who yet described accurately the character of the pulse and of the conditions indicated thereby. In days when instruments were less perfect accurate observation of such points was more skilfully employed than now.

It is the duty of every physician to investigate every case fully and carefully. A very studious physician who recently died was upbraided for working so hard when he already was so well qualified. He replied that he was obliged to give to every case whose treatment he should undertake all the skill he could command and all the light he could get from the experience of others, in order that the demands of his own conscience might be satisfied.

There were no reports from the special committees, but Dr. French has had numerous cases of throat trouble which have puzzled him. Some have gone on to suppuration and many have had a membrane like diphtheria, while all have had tonsillitis, but none have been well-marked cases of diphtheria, nor have there been any of the usual sequelæ. Dr. Seeley has had several such cases. In one there was the usual diphtheritic odor at the first visit, but it disappeared at once. Has not felt warranted in reporting any of them as diphtheria.

Dr. Bradley thanks the society and says there has been much diphtheria in Detroit of late, but with it there were many cases that had many of the characteristics but were not diphtheria. Thinks that many cases which have been reported as diphtheria were no worse than those mentioned by Drs. French and Seeley. Some seemed to die of the old-fashioned putrid sore throat. In many cases of the severest form isolation of the affected members in families protected the rest from the contagium.

Dr. Alvord thinks there are several conditions which may be confounded with diphtheria, because, all being systemic diseases, they easily shade off into each other. Thinks that when there is a false membrane on the outer walls we may have no hesitation in saying that we have to deal with diphtheria, but that there are certain mongrel forms which are yet nameless, and that the cases in this vicinity are to be classed among the nameless.

Dr. Carstens says a German physician claims that there is a true and a false diphtheria, basing the classification upon the difference in the bacteria as revealed by the microscope, these being longer and more active in one form. Does not think this reasonable, but he thinks we may have extremely mild cases during epidemics as we have simple diarrhœa prevalent in a siege of cholera. Thinks that where there is any doubt the case should be treated as diphtheria, as it is always best to be on the safe side.

Dr. Crosby says that a few years ago he had many cases that were called diphtheria, answering to the descriptions given this morning, but he has seen only six or eight cases in his practice; thinks that in true diphtheria the membrane is tough; that the exudation of follicular tonsillitis is often called diphtheritic membrane.

Dr. Kellogg sees no objection to the theory that the disease, while virulent, may often assume a mild form; thinks that inasmuch as the question is a thoroughly practical one, a physiological test should be applied—the inoculation of rabbits with the virus. If no results are obtained, the conclusions may be only negative, but if the disease be thus transferred, we have positive evidence, and, since the microscope does not give positive information, he knows of no certain proof, but thinks the physiological test the safest.

Dr. Connor asks if contagion is not the only real test for contagious diseases. Dr. Kellogg thinks it is, but thinks it better to test the contagion by the aforementioned experiments. He knew a case in which a fence-builder, suffering with a sore throat and slight indisposition, called a child to bring him a drink of water while he was at his work. He drank from a dipper and the child drank after him. In a few days the child had a malignant form of diphtheria, and the contagion could be traced to no other source. The man was not confined in bed for any time.

Dr. Connor asks if the same disease is not more fatal in young children than in adults. Dr. Kellogg thinks diphtheria is, but thinks the difference is due to the smallness of the larynx. Dr. Connor says that right here is an important question in his mind. In persons over ten years of age the disease is rarely fatal; under that age it is alarmingly so. Is it not due to anatomical structure and physiological conditions? Formad's investigations show that in animals peculiarly susceptible to the tuberculous contagium, as the guinea-pig, a microscopical section shows that the lymph spaces are extremely small, while in the non-tuberculous animals these spaces are larger. The same thing has been found in the dead-house with reference to human beings, viz., those who have died of tubercle have very small lymph spaces, but other human beings have larger. Possibly a similar difference in organization may be the true solution to the differences in susceptibility in other diseases. In some things it has been traced, as in typhoid fever.

Dr. Crosby thinks it more probable that the laryngeal capacity causes the difference in fatality from diphtheria.

The society now adjourned to take dinner at the Sanitarium, to inspect the buildings and equipments, to investigate some clinical cases of special interest, and to reassemble at the council rooms at 2:30 P. M.

AFTERNOON SESSION.

Dr. Tomlinson was in the chair. The secretary being late, Dr. A. W. Alvord was chosen secretary pro tem. Dr. Connor read an excellent paper on syphilis of the eye and its appendages, for which he received the thanks of the society and a request that a copy of it may become the property of the Association. There being many papers on the programme the chairman did not wait for discussion but called for the next paper, by Dr. Lindsay, on the etiology of respiratory diseases in children. This was followed by a paper on the regulation of medical practice by Dr. Crosby, another on the effect on the public welfare of prescribing patent or proprietary medicines by the regular profession by Dr. Paddack, and finally one by Dr. Carstens on the treatment of amenorrhœa by dilation of the cervix. These all received the thanks of the society and requests that their papers might become the property of the Association. Dr. Carstens' method was discussed and pronounced valuable.

Dr. French then gave some notes of surgical cases occurring in his practice. A man had sustained a compound fracture of the metatarsal and phalangeal bones of the foot. Dr. F. sewed up the laceration and laid him away. The general health remained good except for the shock of the accident. After a few days the foot began to turn black. It was then treated with antiseptic dressings until the sixteenth day when the patient went to his home in Kalamazoo, and was not seen again by Dr. French for 25 or 30 days, though he was to have secured the services of another physician. At the end of a month he was called again as the patient had become alarmed. He found all of the foot below the fracture in a sloughing condition and he found that he could readily turn it off with very little effort, disclosing a healthy granulating surface underneath. The sensation of the sloughing part had very gradually disappeared as the tissue decayed. Within two months the surface was nicely covered with cuticle. He thinks that conservative surgery is often the wisest.

Dr. Connor had a case that did not end so favorably. A young lady hurt her right foot on a loose plank in a side-walk. For a time there was some soreness but no serious symptoms. Then she had an abscess in the iritis and ulcerative keratitis. The case at first fell into the hands of a quack, then went to a regular physician who sent it to him for treatment of the eye complication. He at once detected pyæmia in the eye and brain and requested Dr. Wyman to examine the foot He drew a quantity of pus from beneath the fascia of the sole of the foot, but although under careful treatment she improved as to the eye trouble the brain affection grew worse and she soon died from the brain complications. After thanking the society for their kindness Dr. Hiland gave a graphic and highly interesting description of a voyage from Alaska to the Salome Islands, and of the people and their diseases on the Navigator Islands. The people, though living on a simple diet, principally vegetable, are not a healthy people by any means. The principal disease with which they are afflicted is elephantiasis. He thinks that exposure is the cause. Their houses and clothing are extremely primitive and consequently they are much exposed to the inclemency of the weather and contract malarial affections which are the first manifestations in almost every case of elephantiasis here. The people do not recognize the relation of the two affections but he is very sure that there is such a relation existing. After a siege of malaria there is soreness of the legs and the elephantiasis gradually develops therefrom. He with his companion surgeons removed a large number of scrotums—dissecting out the penis and cutting all away but skin flaps to cover the wound. The mass consisted of hypertrophied skin infiltrated with fat, the testicle being usually atrophied. The scrotal cases usually began with hydrocele or hæmatocele, and operations for these affections prevented development of the malady in many instances. Of the cases operated on for elephantiasis all but one did well. This one was very weak at the time and died of shock. He received the thanks of the society for his very interesting and instructive remarks.

Dr. Kellogg, returning to the cases mentioned by Drs. French and Connor, referred to Dr. Hamilton's method of immersion in hot water to stop the tendency to gangrene and sloughing. Reported a recent case in practice, an operation for strangulated scrotal hernia, in which the intestine was found extremely congested and somewhat discolored when he had cut down upon it. He feared sloughing, but determined to try the virtue of heat to stimulate the circulation and keep up the vitality. He accordingly fomented the intestine thoroughly before replacing it and then applied the fomentations externally for four hours after the completion of the operation. The results were excellent. The temperature did not rise to 100° for several days and the local tenderness and pain were very moderate. The patient has done nicely in every particular.

The society now adjourned to take supper at the Williams House, and to reassemble sharply at 7 P. M.

EVENING SESSION.

Dr. Tomlinson in the chair. The president, Dr. Geo. H. Green, being in New York city to spend a few months in the hospitals there, had forwarded an address to the society, which was read at this time. It was very enthusiastically received, calling forth hearty cheers from the members.

No. 235 East Thirty-First Street,
NEW YORK CITY, Dec. 1st, 1882.

Mr. President and Physicians of the Calhoun County Medical Association:

I deeply regret not being able to be present at this annual meeting, for I had hoped that it would be one of unusual interest, and I had desired to complete the year by being present at every meeting, but the distance is too great and I cannot think of coming so far. I have a strong anxiety for the permanent success of the association, and am willing to do all that I reasonably can to promote its welfare. I have never attended one of its meetings but that I have felt that it has done me good to be there, and although the distance was considerable, and it required some exertion to get out so far, yet every time I have been repaid for the time and trouble thus spent. Others may not feel so well repaid for attendance, but it seems to me that the more we attend the meetings and take an active part in them, the more we are interested and the better we feel repaid for our time. When a member writes and reads a paper, he takes more interest in that meeting than he would if he had had nothing to say, and consequently gets more good from it. By writing his paper he collects and arranges in proper form all that he knows on that subject, and usually collects all of the available information upon it which is within his reach and gets it into a clear and orderly shape, and however valuable his paper may be to others, by systematizing his knowledge it does the writer more good than any one else. Then again, when we join in a discussion, the various phases of the question are presented and each point is sifted, and by this means our own interest and that of others is increased in the meetings and we do ourselves and others good. By so doing each one will bear his share of the burden of keeping our association in good running order, and while thus doing good to others, will do himself the most good. Medical associations become dry, dull and uninteresting when each one waits for the others to write the papers and conduct the discussions, and while thus waiting, the interest lags and the meetings are voted to be dull and hardly worth attending. I am well aware that the owl wins in medicine, but other birds make our meetings more interesting. The social character of our meetings is, I think, an important element in our success. The friendly greeting and social chat helps to make us better men and better physicians. Man is a social creature, and I believe it to be well to cultivate the social character, especially the social manner of conducting the meetings; not requiring that every person shall arise and say, "Mr. President," and then wait to be recognized by that officer before speaking, but cultivating more the friendly and conversational manner in our discussions. I am well aware that this manner of conducting a meeting is not appropriate when there is any large number present, and that a large meeting could not be handled in that way. But when the attendance is not more than twenty or thirty, I should hope for the interest to be kept up better with the more informal discussions than with the more formal. It is true that the physician should be a tyrant in the sick-room, and as we spend most of our working hours in attendance upon the sick, we unconsciously form habits of positiveness which are not as appropriate in our meetings as in the sick-room. This very positiveness, which is so desirable, nay, even necessary in the sick-room, when carried into our meetings, may provoke needless opposition, or quite unconsciously hurt the feelings of some one who is equally as well entitled to an opinion as ourselves. Or a sensitive nature may feel as much hurt by total silence after reading a paper as by unkind criticism. Please to remember that I do not apply these remarks to any person in particular, but mention them in the general consideration of those things which combine to make a medical association more prosperous and harmonious. It is quite common for some to lead and others to follow, and in all medical associations there are the strong men and the weaker ones. In the nature of things this is unavoidable. But if the strong men are left to do the whole of the work they get tired, and then dilatory, and then the interest lags. The younger or more retired members may have as good thoughts as the others, and it does well for them and well for the association when they overcome their diffidence and modesty and take an active part in our exercises.

When I have asked some of our members for a paper for our next meeting, one has said "I can't," another has said "I don't know enough," while others say "I have not time to do it." Yet, I know these men to be intelligent and successful physicians and thoroughly capable of writing good papers, and if they would force themselves to do it they would be well repaid for their labor. Our lady physicians are not included in these remarks, because each time they have furnished good papers when asked, and have promptly done their full share in keeping up the interest in our meetings. Sometimes a meeting fails to be as interesting and successful as it ought to be, because some of those who have been appointed to report on special subjects are not ready, and under such circumstances I have heard the remark that if our officers had a little more energy the meetings would be more interesting. While this remark may be true in part, yet surely a part of the truth lies elsewhere. When a physician takes his own interest into consideration he cannot afford not to be a member of some medical association, and when a member it is for his good as well as for that of the association that he be an active member. When doctors meet in friendly communion, they become better acquainted with each other, and by a free interchange of thought on medical subjects each will learn something from the other, for none of us are too old or too wise to learn. By these discussions and conversations we break off some of the sharp corners which we have acquired in the sick room, and at the same time we enlarge the scope of our thoughts, modify to some extent our prescriptions, and feel more friendly toward our neighboring physicians, more willing to observe the golden rule, and by so doing, honor the medical profession and ourselves. I beg pardon for presenting these thoughts at this time and in this manner. My interest in the future of our association is my only excuse. Could I be with you and present the address which I expected to, my thoughts might take a different turn, but as it is this letter will have to take the place of the address. I hope to be with you in our future meetings and shall expect to do my share of the work. I will say but little of what I see or do here, as it may not interest you. I see but little of the spray in surgery. Indeed, have seen it but once, and then it was used only a part of the time during the operation, which was to cut in and replace a displaced kidney and sew it fast. Professor Lusk says that he has ceased to have the spray directed upon the abdomen in ovariotomy, but has it directed against the students who witness the operation to drive back any germs that might be coming from them toward his patient. I had little faith in the spray when I came here and have less now. The three colleges here are full of students and the hospitals are full of patients. Plenty to prescribe and plenty to take the medicines. There is abundant chance to study disease here in almost every form known to humanity. But when we come to the treatment of the more common forms of disease, I had as soon trust my life in the hands of members of the Calhoun County Medical Association as of members of the college faculties here. City hospitals are good places to study disease and try experiments, but may the good Lord deliver me from ever being one of their patients.

I thank you each and all for your uniform kindness and courtesy toward me during my term of office, and for the evident good will which has prevailed and for the very good work which has been done. I hope and trust that under the guidance of our new officers the association will grow and improve in interest and usefulness, and toward this I will cheerfully contribute my best endeavor. With the best of good wishes I am your friend and servant. GEORGE H. GREENE.

The treasurer's report was now called for, read and accepted.

Election of officers was next called for, and the following officers were elected: For President, Dr. M. W. Tomlinson, of Battle Creek; for 1st Vice-President, Dr. Joy, of Marshall; for 2nd Vice-President, Dr. Alvord, of Battle Creek; for Secretary and Treasurer, Dr. W. B. Sprague, of Battle Creek.

The discussion was now called for, the question being, the duty of physicians in preventing the spread of contagious diseases. Dr. Kellogg, leading, thought that from a legal standpoint the question hardly admitted of discussion as the laws of the state clearly indicated the answer, but supposed that it was intended it should be discussed from a moral standpoint. If so it seemed very plain to him that the physician's duty required him to take every possible means to prevent dissemination of contagious principles.

It is said that in Chicago not less than one person in five is contaminated by syphilis. Thinks that many physicians do wrong to advise a young man to marry who has received the virus into his system, even though he may have suffered from none of the manifestations for a long period, for experience proves that one is never free from danger of its reappearance. No physician would advise a young woman to marry under the same circumstances. If Dr. Bennett's method of treatment were carried out, viz., eliminative baths, there would seem to be a chance for complete recovery, but, in his estimation, mercury and the iodides simply render the disease latent for the time. Even in gonorrhœa instances have been called in which the disease was repressed entirely for a long time, and would then break out again. But besides the danger of heredity and contagia, common morality requires that young men should be taught that they must suffer the penalty of their sins. They would then be more abstinent than when taught, as they are by some physicians, that the danger is almost null.

Dr. Crosby, second principal, agrees with Dr. Kellogg concerning advice to young men, but not fully on all the theories advanced. Thinks there are many things that may be done by the physician to prevent the spread of contagion that are not indicated in the law, such as teaching people how to carry out prophylactic and hygienic principles.

The hour had now arrived for departure of the train by which many of the society must depart, and, after thanking the gentlemen from Detroit for making so great an effort to favor us by their attendance and assistance, the society adjourned to meet again in this city on the first Tuesday in March.

W. B. SPRAGUE, Sec'y.
M. W. TOMLINSON, 1st Vice-President.

Health in Michigan.

For the week ending November, 18, 1882, the reports indicate that typhoid fever, pneumonia and neuralgia increased, and that bronchitis, tonsilitis, typho-malarial fever, diphtheria, intermittent fever, cholera morbus, diarrhœa and scarlet fever decreased in area of prevalence.

At the State Capital the prevailing winds during the week ending November 18, were west; and, in comparison with the averages for the preceding week, the temperature was lower, the absolute and relative humidity less, and the day and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present, during the week ending November 18 and since, at 24 places, scarlet fever at 13 places, and measles at three places. Small-pox was reported at Niles and at Grand Rapids November 18.

For the week ending November 25, 1882, the reports indicate that influenza, diphtheria and inflammation of the bowels increased, and that puerperal fever, dysentery and cholera morbus decreased in area of prevalence.

At the state capital the prevailing winds during the week ending November 25, were southeast and west, and, compared with the preceding week, the temperature was lower, the absolute humidity and the day ozone less, and the relative humidity and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present, during the week ending November 25 and since, at 22 places, scarlet fever at 13 places and measles at five places. Small-pox was reported at Grand Rapids November 25.

For the week ending December 2, 1882, the reports indicate that neuralgia greatly increased, that cholera morbus considerably increased, diphtheria, erysipelas and whooping-cough increased, that intermittent fever greatly decreased and typho-malarial fever considerably decreased in area of prevalence.

At the state capital the prevailing winds during the week ending December 2 were southwest, and, compared with the preceding week, the temperature was lower, the absolute humidity and the night ozone less, the relative humidity and the day ozone more.

Compared with the average for the month of November in the preceding five years, neuralgia and diarrhœa were more prevalent, and intermittent fever, pneumonia, whooping-cough, consumption and diphtheria less prevalent during the month of November, 1882.

For the month of November, 1882, compared with the average of corresponding months in the preceding three years, the temperature was higher, the absolute and relative humidity more, and the day and night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending December 2 and since, at 26 places, scarlet fever at 14 places, and measles at five places. Small-pox was reported at Lyons, Ionia Co., December 1.

Sanitary inspectors report two cases of measles found among immigrants arriving at Detroit, during the week ending December 2.

For the week ending December 9, 1882 the reports indicate that intermittent fever, influenza, tonsilitis and pneumonia increased, that neuralgia, diphtheria and typhoid fever considerably decreased, and that typho-malarial fever, bronchitis, cholera morbus, diarrhœa and whooping-cough decreased in area of prevalence.

At the state capital the prevailing winds during the week ending December 9, were southwest, and, compared with the preceding week, the temperature was lower, the absolute and relative humidity less, and the day and night ozone more.

Including reports by regular observers and by others, diphtheria and scarlet fever were reported present during the week ending December 9 and since, each at 16 places, and measles at four places. Small-pox was not reported at any place in Michigan.

For the week ending December 16, 1882, the reports indicate that typho-malarial fever, pneumonia, tonsilitis, bronchitis and whooping-cough increased, and that remittent fever considerably decreased in area of prevalence.

At the state capital during the week ending December 16, the prevailing winds were west, and, compared with the preceding week, the temperature was higher, the absolute and relative humidity and the day and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending December 16 and since, at 17 places, scarlet fever at 16 places, and measles at three places. The last case of small-pox at Grand Rapids was discharged from hospital December 14.

HENRY B. BAKER,
Secretary.

LANSING, Dec. 21, 1882.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Avena Sativa.

THE persistent efforts of an eastern drug house, and the nature of those efforts, to induce the medical profession to seriously consider the claims which it sets forth for avena sativa (the common oat) is one of the many curiosities of modern pseudo-pharmacy. It is difficult, indeed, to approach the discussion of these claims in anything like that serious frame of mind befitting the consideration of a scientific question, and were we not aware of the fact that there are a few, who, in their honest desire for an improvement of the materia medica, are disposed to lend an ear to statements, how absurd soever they may be, regarding the new, we should scarcely have attempted to expose the fallacy and absurdity of this latest conception of an erratic mind.

The following are, briefly, the claims which are advanced for the preparation of oats known as Concentrated Tincture of Avena Sativa; it is "diuretic, slightly laxative, tonic, stimulant, but especially nerve stimulant." In virtue of these properties, it is claimed to be an antidote for the opium habit. It is a remarkable, and, indeed, unaccountable fact (if it is a fact) that the modest oat should during the centuries of its use by millions of both the equine and the human race, have so persistently kept its effulgent medicinal light beneath a bushel. It is not our purpose, however, at this time to discuss these claims; this has been effectually done by Dr. H. H. Kane, of New York, the famous expert and writer on the question of the opium habit, who has, besides exposing their absurdity on *a priori* grounds, followed up the individual cases in which Dr. Sell claims to have wrought cures, and shown that the deductions drawn from them by the latter were entirely unwarranted by the facts. We have space only for a brief reference to the pharmaceutical side of the Concentrated Tincture of Avena Sativa, so-called, in which preparation the virtues of the oat are in some mysterious manner potentized or dynamized after a fashion before which homœopathy must hide its diminutive head.

It is claimed that the preparation alluded to contains the active principle of the oat. What is this active principle? Its nature? Its physical properties? Its physiological effects? A chemical analysis of the oat gives the following: Twenty-five per cent. of husks and seventy-five per cent. of grain; the former 1 to 1½ per cent. of fixed oil, ½ to ¾ per cent. of sugar and gum, nearly 2 per cent. of protein compounds, and 6½ to 7 per cent. of ash, the remainder being cellulose. The grain contains 64½ to 66 per cent. of starch, 5 to 7 of fat, 18 to 21 of protein compounds, 1 to 3 of salts, the remainder being sugar, gum and cellulose. The largest portion of the protein compounds is *avenin*, which closely resembles legumin in its behavior to solvents, and contains 17 per cent. of nitrogen, and ¾ to 1 per cent. of oxygen. It is fair to presume that any "active principle" which the grain may for the sake of argument be conceded to possess, resides in the avenin; a substance which is precipitated by alcohol, the menstruum employed in making the "con. tinc. avena sativa." If the presumption is correct (and certainly the "active principle" does not reside in the salts or those organic constituents of the oat with which we are more familiar), the fact is sufficient, of itself, to satisfy the reader of either the dishonesty or ignorance of the manufacturer.

An examination of the "Con. tinc. Avena Sativa," moreover, shows it to be a very complex mixture, and the affidavit of its manufacturer to the effect that "it is prepared by dissolving in alcohol the *active principle* of common oats (grain); also that there is no admixture of any kind whatever with con. tinc. avena, as so prepared," will, it appears to us, require to be supplemented by explanatory remarks to satisfy the merest tyro in chemistry who may undertake an analysis of the preparation.

If the manufacturers of this wonderfully active preparation have succeeded in isolating the so-called active principle of the oat, they have done something which has never before been accomplished, and until they lay before the profession a description of the process through which they have thus succeeded, together with a description of this principle, the suspicion will attach to them that they are aping the methods of that class of charlatans who ascribe to their nostrums activities which are intended to deceive only the public, well knowing that their claims can but excite the contempt of educated physicians. J.

The Anatomical Basis of Tuberculosis.

In the Philadelphia *Medical Times*, Nov. 18th, is quite a remarkable article by Dr. H. F. Formad. In it he attempts to show by certain anatomical points that the bacillus tuberculosis has no relation with the etiology of tuberculosis. He thus presents us a skeleton of his attempts to establish the anatomical foundation of scrofula and tuberculosis. This is an old idea. Prof. F. W. Beneke has published extensive researches upon this subject in general. In the November issue of the Detroit *Lancet*, Dr. Petershausen gave an abstract of a portion of this work. Dr. Formad has been long working at this task, and we are more favorably impressed with the accuracy and trustworthiness of his work than with much that passes under this name.

He believes that his researches justify the following conclusions:

1. The predisposition to tuberculosis in some men and animals, the so-called scrofulous habit, lies in the anatomy of the connective tissue of the individual, the peculiarity being a narrowness of the lymph spaces, and a partial obliteration of them by their cellular elements.

2. Only beings with such anomalous structure of connective tissue can have primary tuberculosis, and such animals invariably do become tuberculous from any injury resulting in inflammation or from repeated injuries.

3. Scrofulous beings can have no other than a tuberculous inflammation, although it may remain local and harmless.

4. Non-scrofulous men or animals may acquire the predisposition to tuberculosis through mal-nutrition and confinement, the latter bringing on the above mentioned anatomical peculiarities in the connective tissue.

5. No external etiological influences are necessary to cause tubercular disease other than those which ordinarily produce inflammation, and even scrofulous beings will not become tuberculous unless local inflammation is set up. No inflammation, no tuberculosis.

6. Non-scrofulous animals, so far as can be established now, may acquire tubercular disease through injuries of the serous membranes, viz., peritoneum, pleura, etc., and even here without any special virus whatsoever. Clinical observations on the post mortem table show similar conditions and prove the same in man.

7. The bacilli, which it is the merit of Koch to have first proved to infest tissues affected with tubercular disease, are not necessary for its causation, even if a special organism exists and be really possessed of such property. The presence of the bacilli (so far as our present research goes) is secondary, and appears to condition the complete destruction of the tissue already diseased and infested by them, and this destruction is in direct proportion to the quantity of the organisms, which thus regulates the prognosis. The tubercular tissue seems to serve merely as a nidus for the growth of the bacillus.

8. From the results of the microscopic examination, from numerous observations upon the post mortem table, and on clinical grounds, I have come to the conclusion that phthisis is not a specific infectious disease, but that the individuals suffering from tubercular disease are specific themselves originally and form a species of mankind, the scrofulous.

9. Scrofulosis is a condition which may arise from malnutrition and seclusion in any being, and may thus be produced artificially. It always depends upon the demonstrated anatomical changes in the connective tissue.

10. An analysis of Koch's experiments shows that he has not proved the parasitic nature of phthisis, or that there exists a special bacillus tuberculosis; so that the infectiousness of tubercular disease is still sub judice.

The study of the minute anatomy of scrofulous persons, the author says, was suggested several years since by the emphasis placed by clinicians upon predisposition. Hence, he began the study of the tissues of the tuberculous and scrofulous, post mortem. He soon found that there was a constant difference between the connective tissue of the tuberculous and the non-tuberculous. A microscopical section of connective tissue from a scrofulous or tuberculous person or animal, exhibits more rounded cells and smaller lymph spaces than similar tissue from the non-tuberculous.

When it is remembered that the connective tissue extends everywhere, and that lymph canals also surround the blood vessels, it is readily seen that a diminution of their size and a filling more or less of their cavities with cells, tend to interfere with lymph circulation. This is the important anatomical fact brought forth by Dr. Formad. When inflammation arises in such tissues, the narrowed and obliterated lymph spaces interfere with the reabsorption of the exudate, and the tissue of the affected area lingers under the voluminous pressure of the imprisoned cells which form tubercles. There is no alternative but these must die and undergo cheesy degeneration. Thus tuberculosis is the natural and only kind of inflammation a scrofulous being can have. It is evident from these facts that no special cause is needed for the production of tuberculosis. Given a scrofulous constitution and the same causes that in others produce ordinary inflammations, in the scrofulous produce tuberculosis.

This scrofulous habit can be induced in animals and persons not naturally possessed of it. True tuberculosis can be produced even in non-scrofulous animals through simple injuries of serous membranes.

The experimental and clinical evidence in support of these propositions seems unquestionable. Other papers are promised by the writer, adducing farther evidence in support of his views. They have so impressed us with their truth that we have given this full presentation of them in the hope that the attention of others may be directed to them. The parasitic theory of tuberculosis we were never able to associate with well known physiological and pathological facts.

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The Money Reward of Garfield's Physicians.

Long and earnest has been the discussion respecting the amount that should be paid to the several parties attending the late President Garfield. The temper of the people was ascertained when it became known that Congress appropriated but thirty-five thousand dollars to pay physicians' claims aggregating about one hundred and five thousand dollars. It is now announced that the committee appointed to audit these claims has reported in favor of paying only twenty-five thousand five hundred dollars. This is seven thousand five hundred dollars less than Congress placed at their disposal. Thus Congress cut their claims down to one-third and their auditing committee still further cuts it down by twenty per cent. Thus the physicians get about twenty-five per cent. of their bills. Uncle Sam proves a very poor creditor. A medical practice that does not pay eighty per cent. of its charges against responsible patrons is a very poor affair. Here is a perfectly responsible party repudiating seventy-five per cent. of the charges against him. Why is this? Surely there must be some adequate reason why these medical men have been treated so shabbily. In New York City or Chicago or even Detroit, a man of Garfield's position backed by the nation's treasury or even by a fortune of a million would have paid for the same talent in attendance for so long a time far more than was charged by these physicians or he would not have them. It is well known that fees immensely larger in proportion are constantly paid to physicians, of less experience and ability in far less perplexing and serious cases, and paid with gratitude too. Whence then this meanness on the part of the politicians. Doubtless it is impossible to state all the elements operating to secure the end just reached. The following strike us as probably some of the reasons.

1. There is no evidence that these physicians offered to divide with the honorable congressmen and senators. Hence their interests were to cut down the pay to the smallest possible limit that they might have more to use for their own private steals. This is not a creditable view to hold, but the record of the last Congress is mainly remarkable for its gigantic "jobs."

2. The disreputable conduct of the leading medical attendant was such as to disgust the mass of intelligent people as well as the medical profession. This conduct no doubt had a great influence for evil over the work of his associates. As one bad person in a club gives the entire club a doubtful reputation, so the rest of the physicians had to suffer from their association with this man. As the general impression has been that his course was of little service to the dying patient, so it has been argued that his associates were no better.

3. There is a general feeling among lawyers that physicians deserve only small pay at best. Lawyers make up a large portion of Congress. Hence honestly Congressmen thought that the physicians attending Garfield deserved but little. Hence the auditing committee gave to the first surgeons in America, Drs. Agnew, of Philadelphia, and Frank Hamilton, of New York, only five thousand dollars each while they gave to a simple nurse, Mrs. Edson, three thousand dollars.

It is a matter of lasting regret that the medical profession was so thoroughly misrepresented in knowledge, in culture and in skill, and in good sense by the leading physician in this case. We believe that had his place been given to either Dr. Agnew or Dr. Hamilton the issue would have been far different. We believe also that popular and professional sentiment would have compelled Congress out of its abundant resources, to pay far more than either of the physicians claimed for their services. And better still the medical profession would have been elevated to a higher place in the public mind.

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The Latest News from the New York Code of Ethics.

To date of writing thirty-two counties have instructed their delegates to use all honorable means to cause a reversal of the action of the New York State Society as respects its code of ethics. As it is a matter of more than usual interest we give the list of counties as follows, viz.: Queens, Onondaga, Niagara, Oneida, Courtland, Schoharie, Chemung, Rockland, Orange, Erie, Seneca, Kings, Cayuga, Oswego, Broome, Wayne, Monroe, Lewis, Chautauqua, Chenango, Montgomery, Franklin, Richmond, Ontario, Saratoga, Jefferson, Sullivan, Warren, Delaware, Columbia, Putnam and Herkimer. Three counties have voted to adopt the New York Code, viz.: New York, Clinton and Tompkins. Steuben desires that all codes be abolished. Thus, as regards the support of the National Code of Ethics, four counties oppose and thirty-two sustain it. It looks as if the National Code would be sustained at the coming meeting of the New York State Society. In view of these facts the organ of the new Code, the *New York Medical Record*, in a late editorial expresses great anxiety lest the delegates to the coming meeting be fettered by instructions from their respective county societies. It has gone over the ground substantially several times before so that we need not repeat its arguments.

Evidently the action of the Kings County Medical Society, which includes the great city of Brooklyn, in passing resolutions which indorse the old code and condemn the new one has greatly disturbed its equilibrium. Hence, it has much to say of "machine politics," etc. It strikes us that "machine politics" is a term more fittingly applied to such action as would induce delegates to vote and speak in opposition to the views of the societies which they represent. Such a course of action is commended by the *Record* to the delegates from the thirty-two counties opposing the adoption of the new code. That the *Record* should condemn the American Medical Association in its action respecting the delegates from New York at the last meeting is to be expected, as its editor scarcely ever attends the meetings of this body and hence has little personal knowledge of its mode of action. Besides, it sat down upon his pet scheme of so-called "progress" in ethical matters. He tries to throw an element of suspicion over the action of the county societies which repudiated the new code by intimating that they have been manipulated as the ward caucuses of his city. But respecting the three counties which have sustained his views he has only words of commendation. They were not manipulated, oh no! But the thirty-two counties which oppose his views, they were manipulated, and so the principle of American liberty is in danger. Is it not sad?

It was very demoralizing that after the fullest consideration, postponing the matter for a considerable length of time after the resolutions were first presented that the medical society representing Brooklyn and its associated cities, etc., should "Resolve, that it is in favor of having a code of ethics, and of having that one in substantial accord with the principles of the old code of the State Society and the present code of the American Medical Association," and that it should instruct its delegates to vote in the meetings of the State Society in such a manner as to sustain these views. That thirty-two county societies have had the backbone to thus express their views is a hopeful sign that the entire profession has not lost its good sense and its professional honor. It indicates that while it favors "liberty," it opposes "license." Nor is it to be deceived by such as call "license" by the name of "liberty." There is no "liberty" without the most attentive regard to the rights of others. That is "tyranny" in which each does as he pleases, it matters not whether it be in state, in church, in law, or in medicine.

Another Diploma Mill Placed Upon the Black List of the Illinois State Board of Health.

Most of our readers are aware that the State Board of Health of Illinois has the power of accepting or rejecting the diplomas of physicians desirous of practicing in the state of Illinois.

The disadvantage of having a diploma from a school upon the black list of this board is that the holder is required to pass an examination before he can legally practice in the state of Illinois. It seems that a person holding a diploma from the Bellevue Medical College of Massachusetts desired to be registered before the Illinois board of health. The diploma was signed by the president, Rufus King Noyes, M. D., and the secretary, May R. Eastman, and upon the seal, consisting of an ordinary red paper tab, were impressed the words: "Bellevue Medical College, Chartered by the Commonwealth of Mass."

The appearance of the diploma being suspicious the board photographed the diploma before returning it to its owner. This man said that he was fifty-seven years old, but that he had only been in practice during the past five years; that his practice had been confined to the vicinity of Boston; that he had obtained his diploma on the 15th of September, 1882; that he was a homœopath and belonged to the New England Medical Society of Specialists. From correspondence it was learned that this Dr. Noyes was an anti-vaccinationist of some local notoriety in Lynn, Mass.; that he claimed to be physician, surgeon and oculist, referring on his card to the Dartmouth Medical College, the Massachusetts Medical Society, and that the Bellevue Medical College of Massachusetts received a certificate of incorporation May 25th, 1880, under the public statutes relating to manufacturing and other corporations organized under the general laws. The *modus operandi* of this institution was fully developed by the aid of a young journalist. By decoy letters, in which all rules of spelling and of sentence making and of sense were constantly violated he succeeding in getting replies, and finally, by sending a most outrageous essay on vaccination, he had sent to him C. O. D. for $150 a diploma and matriculation tickets, etc., for the two required terms of attendance. Of course he had never been near the college and did not intend to go there. The chain of evidence was completed to the minutest details, showing the fact that diplomas and tickets are sold by this college without any instruction or actual attendance, or any evidence of any knowledge, literary or medical.

Taken by itself it is a funny affair; the best joke of the season. But in its evident relations to medical diplomas it is a sad affair. The board in its account of this investigation, published and lying before us, remarks:

"It would not be difficult to parallel the tenor of the Third Year's Announcement of the Massachusetts Bellevue with announcements of older institutions not chartered as 'manufacturing corporations.' Nor is the mode of making out the necessary time 'spent in the study of medicine' entirely unfamiliar to many colleges which claim to be in good standing, and which unfortunately are accepted as such. How many ignoramuses with not one whit more of education, either literary or medical, than is displayed in the essay on 'Vaccination' are every year turned loose upon the public, each bearing a diploma reciting that some Rufus King Noyes and his colleagues have adjudged and decreed the bearer a distinguished man devoted to the noblest pursuits, worthy and fit to be honored with the highest mark of distinction."

It would be a matter of general interest if enterprising reporters would in a similar manner investigate the actual workings of the several medical colleges of the land. It is more than probable that the showing of some would be as disreputable as in the case brought to light by the Illinois State Board of Health.

Recent Supreme Court Decisions Respecting the Rights and Responsibilities of Physicians.

It is of importance to the physician to know how the law regards his actions. Especially is this true of the law as interpreted by the highest courts, as from these there is no appeal.

The decisions which we shall quote were rendered by the Supreme Court of Michigan, filed October 18, 1882. The case in connection with which they were given was quite a common one. A doctor treated a man for serious injuries. Instead of paying the doctor thankfully, the patient started a suit for malpractice. It will be seen that the issue of such a case must turn upon the value of the doctor's services. The patient claimed that their value was entirely of a negative character, in short that he should be paid by the doctor for permitting him to spend his time and skill upon him. The doctor maintained that his time and knowledge and skill was worth in money, at least that which he had stated in his bill. Who shall decide the differences between these two estimations of the value of the surgeon's services? The answer to this inquiry is fairly stated by the Michigan Supreme Court in the following quotations.

"There is no presumption of law as to the value of a surgeon's services, nor that a jury can ascertain their value without testimony from persons knowing something about it. Nor has a jury a right to reduce the compensation claimed for such services where undisputed testimony shows it to have been appropriate, and on their own unsupported notions that the treatment should have been different.

"A jury has no right to ignore testimony that has not been discredited, and form independent conclusions, without testimony, on matters that require proof beyond their conjectures or opinions. The fact that a surgeon changes a course of treatment adopted by another does not in itself show that the former course of treatment was not proper at the time; nor is the patient's failure to recover perfect soundness of limb in itself evidence of malpractice, nor is the fact that he survived, although he refused to allow a particular course of treatment evidence that such a course might not have been proper under the circumstances.

"The jury in an action for the value of surgical services has no right to find malpractice without testimony from persons who are qualified to give opinions on the method of treatment."

It will be seen from these quotations of the Supreme Court that a jury must base its estimate of the value of a physician's services entirely upon the testimony of physicians. If the physicians testify that the services have a certain value the jury must accept it as ultimate not to be set aside by any private notions they may have upon the subject. The common sense of this is at once apparent. This principle applies to the estimation of the nature and extent of malpractice as well as the other positive side of the results of the physician's services. Thus it appears from the views of the highest courts that the physician must be judged by the evidence of his fellow physicians. Nor can juries neglect to accept this evidence. The profession has always maintained this view and must be gratified that it is now confirmed by one Supreme Court.

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A Theological Tempest at the University of Michigan.

The public and the profession have from time to time been treated to varied ebulitions of this seat of learning. Homœopathy, personal jealousies, ethical matters, etc., have at one time or another in the recent past served to occasion outbursts of considerable violence. But the latest cause of discord is religion. It is the more remarkable too that it should spring up in the medical department and from the chair of materia medica, therapeutics, ophthalmology and otology. Here and now we simply outline the facts in the briefest manner possible. Among the students of the regular medical department was a man named Morgan. For some fifteen years he had been a missionary on the Pacific coast. He drifted into the Ann Arbor Medical School about a year and a half ago. In a letter to the president of the University he complained that Dr. Geo. E. Frothingham, occupant of the chair of materia medica, therapeutics, ophthalmology and otology, consumed portions of his lecture and clinic hours in denouncing churches, ministers and religion. Prof. Frothingham at once denied the charge and accused Mr. Morgan to the medical faculty of being false in both the spirit and word of the complaining letter. The faculty met, heard both Prof. Frothingham and his witnesses, and Mr. Morgan and his witnesses and decided that Prof. Frothingham's charges against Mr. Morgan were not sustained. It is said that of the five members of the faculty present, Profs. Dunster, Langley and Herdman sustained the decision and Profs. Palmer and Sewell opposed it.

Prof. Frothingham now stated that in this phase of the matter he would resign. Prof. MacLean stated that he would do likewise. The medical faculty now held another meeting during which they passed resolutions to the effect that (1) Mr. Morgan in entering a complaint against Prof. Frothingham violated one of the University laws and stepped beyond his privileges; (2) Mr. Morgan in his letter to President Angell exaggerated and misrepresented many important points in his charge against Prof. Frothingham; (3) the faculty does not wish to impeach the veracity of any student or any witness concerned, in voting upon these resolutions. In view of this action Profs. Frothingham and MacLean have decided to stay and Mr. Morgan to go. From these facts it seems that the faculty regard religion, and its representatives as legitimate material for discussion in the course upon materia medica, therapeutics, ophthalmology and otology. Generally it has been supposed in the medical profession that it was wisest to teach one thing at a time. It has also been generally supposed that the medical department of Michigan University had quite enough to do to properly instruct its students in the principles of the science and art of medicine without digressing into other branches of human thought. Lastly it has been believed that the prosperity of the University would not be enhanced by lectures upon theology within its walls. Hence it has not been thought best to establish a department of theology. The facts that we have here sketched in outline would seem to confirm this view.

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The Resources of Michigan.

A second edition of an unpretentious work describing Michigan lies before us. The medical profession are interested in the climates of the several portions of the United States. That of Michigan has generally received less attention than we think its merits warrant. Whether this be true or not, we are sure that no American will read without interest the volume before us. The fact that each of Michigan's two peninsulas is embraced by the largest fresh water lakes in the world is a striking feature, at once suggesting an average cooler summer and an average warmer winter than other states not thus protected. The coast line of the state is 1600 miles long. A very considerable portion of the state is covered with forests of pine and hard wood. Thus it is doubly protected from the fierce winds and tornadoes of the western states. It is never devastated by floods, as its lakes maintain constantly about the same level, and its inland streams have but slight velocity. The equable climate is shown by the fact that it is a great peach state. Its large and its small lakes, its rivers, and its forests, teem with health for the invalid and sport for the hunter or the fisherman, as well as wealth for the farmer, the fisherman, the miner, the lumberman, for all. Certain portions as Mackinac and Petosky are celebrated as the resort of such as seek relief from hay fever; nor do they ever seek in vain. Quite uncommon for this latitude are the great number of cloudless days that make up the winter and the summer. Some 5,000 small lakes dot the several portions of the state, in addition to the larger bodies of water on its borders.

Among the states Michigan stands first in the production of lumber, first in salt, first in copper, first in charcoal pig iron, first in iron ore, first in fresh water fisheries, fourth in wheat and fourth in wool. It is larger than New York by over 9,000 square miles; larger than Pennsylvania by more than 13,000 square miles; larger than Ohio by more than 17,000 square miles; larger than Illinois by more than 2,000 square miles; larger that Indiana by more than 22,000 square miles; larger than all England and Wales by over 600 square miles, and only about 7,000 square miles less than all the New England states.

We cannot say that it is a desirable place for doctors to practice their profession.

To those desiring this volume it will be sent on application to Mr. Frederick Morley, Detroit, Mich.

As it is prepared under government instructions, it may be looked upon as a reliable account of this remarkable state.

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The Illinois State Board of Health on the Institutions of the United States Granting Medical Diplomas.

As this board has the legal control of the right to practice medicine in the State of Illinois, it has been compelled to study the medical colleges granting medical diplomas. From the advance sheets of its forthcoming report we find many facts of interest to the physician. The number of institutions for the granting of medical diplomas established in the United States and Canada since 1765 is one hundred and seventy-five. Of these one hundred and nineteen are still in existence. Diplomas from one hundred and twenty-three of these have been presented to the board. Of these the board has recognized as fitting to qualify their holders for practice in Illinois, ninety-nine. Five are accepted conditionally and eighteen are rejected. Of the rejected colleges six are in Missouri, four are in Pennsylvania, four are in Ohio, two in New Jersey, one in New York and one in Massachusetts. The total number of matriculates during the session of 1881–82 was twelve thousand four hundred and fifty-four. The total number of graduates at commencements during 1882 is four thousand two hundred and ninety-nine. In the United States the average per cent. of the graduates to matriculates is thirty-four and six-tenths, in Canada fourteen and six-tenths. The highest per cent. of graduates to matriculates in the United States was eighty-three per cent. and in Canada twenty-three. The lowest per cent. of graduates to matriculates in the United States was nine, in Canada two and six-tenths.

The college graduating eighty-three per cent. of its matriculates was the Indiana Eclectic Medical College of Indianapolis. The Medico-Chirurgical College of Philadelphia graduated but nine per cent. of its matriculates. Between these two we have a wide range. Thus the Nashville Medical College graduated forty-eight per cent. of its matriculates, the Medical Department of Universities of Nashville and Vanderbilt fifty-eight per cent., the College of Physicians and Surgeons of New York twenty-one per cent., the Medical Department University New York thirty-seven per cent., Buffalo Medical College thirty-eight per cent., Kansas City Medical College fifty-four per cent., the St. Louis Medical College eighteen per cent., the Missouri Medical College fifty-three per cent., the Medical Department University Louisville fifty-three per cent., the Fort Wayne Medical College fifty-nine per cent., the Medical College of Fort Wayne forty-eight per cent.

These are facts for digestion by the medical profession. Every right-minded man has an interest in knowing what colleges are doing honest work and what colleges are merely diploma mills and concerns for the simple advertisement of their proprietors.

The Report of the Commissioner of Education for 1880.

This portly volume of nearly a thousand pages is now given to the public. As it includes an account of the medical schools of the entire United States, it has some features of special interest to the medical profession. Further, it presents certain facts relating to the management of primary and high schools that have a relation to physiology and pathology, and especially to the etiology of certain forms of disease. We shall call attention to a few of these points, but their full import can only be realized by a careful examination of the entire volume. Grouping together the schools of medicine, dentistry and pharmacy, their total number has increased during the past ten years from sixty-three to one hundred and twenty; the number of instructors has increased from five hundred and eighty-eight to one thousand six hundred and sixty, and the number of students has increased from six thousand nine hundred and forty-three to fourteen thousand and six.

Comparing the state of education of 1870 with that of 1880, he says that while the improvement has been gradual it has been in the right direction. Then but one medical school had a course of instruction extending over three years; now there are several. Then more than half of the schools required no more than attendance upon one course of lectures; now only a small number venture to announce such laxity, however low their real standard may be. Then preliminary education and examination were not insisted on except in a few instances; now several medical schools require better preparation and make special inducements to educated men to enter their walls. Then graded courses were hardly heard of; now they are common and commonly advised if a choice of courses is offered. Then there was little chance for post graduate study; now many schools offer special courses of post graduate training.

Perhaps the most hopeful sign of progress is that the profession has been roused to some activity.

The total number of degrees in medicine given during 1880 was three thousand five hundred and eleven, more than three times as many as in law, and about twelve times as many as in theology. Quite interesting is the account of Javal's recent researches into the physiology of writing. One statement is to the effect that perpendicular writing on a copy book held straight up is a specific against scoliosis and very favorable for the preservation of sight. The entire volume is replete with a mass of information valuable to every broad-minded citizen, especially if a member of the medical profession.

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Faith in a Medical School Illustrated by the Deeds of One of Its Professors.

When the elder Pancoast died worth millions (as reported) we took occasion to comment on the fact that his faith in Jefferson Medical School was shown by the fact that no money was left for the endowment of the school in connection with which he had made his reputation and accumulated his wealth. We quoted other examples of very wealthy professors who had done the same thing. From this we suggested that if wealthy professors desired the outside public to endow medical schools, it would be well for them to set the example. The confessedly great need of all reputable medical schools is an adequate endowment. From the Pacific coast we have an example in which one professor has given to a medical school $100,000. The donor is Dr. L. C. Lane; the college is the Pacific Medical College.

The gift of this princely endowment was coupled with the desire that the name of the school be changed. Changed not in his own honor, but in that of one of the pioneers of medical education on that coast, the founder of the Pacific Medical College. The name of this well endowed school is hereafter to be "Cooper Medical College." As a result of Dr. Lane's efforts the course has been preceded by a preliminary examination and lengthened to three courses of lectures.

What medical professor will show his faith in the school with which he is connected by endowing it with $100,000? There are many medical schools having professors who could as well afford to make this endowment as Dr. Lane.

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Memoranda.

The *Arkansaw Doctor* is reported dead.

It is said that the *St. Louis Clinical Record* is dead.

It is reported that the *Detroit Clinic* is to be absorbed by Dr. Mulheron's journal, the *Michigan Medical News.*

The *New Orleans Medical Journal*, for so long a time edited by Dr. S. M. Bemis, has passed into the hands of Dr. W. H. Watkins.

During 1880 there were brought into the United States three hundred and seventy-two thousand pounds of opium, the equivalent of about three million doses.

The *British Medical Journal* reports the case of a woman who had borne thirty-two children. On three occasions she had twins, twice she had triplets, and afterwards four children at a birth.

The *Medical Record* reports the case of a German surgeon who resected a part of a human lung. The operation succeeded, but the patient died and the doctor was turned over to a jury.

The *New England Medical Monthly* reports a case in which twelve children were born of one mother within three years and seven months. It is a big story, even for the land of wooden nutmegs.

One of the physicians of St. Paul, Minn., is said by the *Medical Journal* of that city to have estimated that one thousand cases of abortion take place in that city annually.

The same journal says that owing to his frequent operations for "lacerated cervix," Dr. A. J. Stone, of that city, is beginning to be known as "Mr. Lacerated."

In former times the heavy drinkers of England had the custom of drinking a glass of oil at the beginning of a meal; thus they prevented the rapid absorption of alcohol by the stomach, and so avoided drunkenness.

The monks of St. Bernard only gave coffee to travelers. It is said they observed that the effect of sudden cold upon such as had taken alcohol, was at times to produce immediate intoxication and in all cases to diminish the power of resisting cold.

Dr. Ashmead suggests that "if the American Medical Association will exclude quack nostrum prescribers from its list of officers, it will take one good step in the right direction."

The *Annals of Anatomy and Surgery* promises an attractive list of papers and discussions for the coming year. It is a capital journal, and while its editors place upon it as much good intelligent work as they have done in the past, its future is assured.

Mr. Jonathan Hutchinson, in his opening address at the London Hospital, said: "The secret of all noble life lies in belief, and the characteristic of all noble minds is the vigor ith which they believe that which is true."

The Hospital College of Medicine of Louisville, Ky., will hereafter hold its sessions in the spring. Thus there will be two spring schools in that city. Thus the changes in the medical schools of that city continue to appear.

Dr. J. S. Morrison, in the *Medical Reporter*, gives a case in which a farmer's wife had nine children within eight years, the oldest being ten and the youngest being two years. There were two pairs of twins and one set of triplets. All were alive and well.

Mr. J. S. Sharkey, of St. Thomas Hospital, says that the great characteristic of modern medicine consists in the union of anatomy, physiology, chemistry, physics and pathology to form the compound science of medicine and the clear appreciation of their necessary inter-dependance.

The *Cincinnati Lancet* says that the "business of looking after the health of that city is vested in a health board whose active members are two saloon-keepers, two druggists and one politician." Alas for the "Queen City of the West," the "Paris of America."

The *Sanitary News* is the title of a ten-paged journal in shape and general make-up much like the *Sanitary Engineer* of New York. This venture is handsomely issued and carefully edited. Price $2 a year. It is published in Chicago, Ill.

About nine hundred thousand dollars have been spent upon the buildings of the Johns Hopkins University. Hundreds of thousands still remain to be expended. The fountain of supply to this University cannot be exhausted, as only the income from the invested capital can be expended. It has a solid foundation.

Dr. Thomas Watson died December 12th, 1882. He was in his ninety-second year. He is perhaps best known for his classical work on the Practice of Medicine. It is not too much to say that no other work of similar extent upon this subject has ever so charmed every reader. "Length of days, riches, and honor" were his.

Six volumes of the *Sanitary Engineer* have been issued without the public being informed who conducted it. Now it is stated that its conductor is Henry C. Meyer. He says that this journal is so remunerative as to be taken from the list of philanthropic enterprises. It is an excellent journal, and we hope it may be still further prospered.

The College of Physicians and Surgeons has a less number of students than last year and the wise men of the school fear that the end has not come yet.

On Nov. 1, 1882, died George Critchett, F. R. C. S., æt. 66. He was widely known for a long time as a successful and skillful ophthalmologist. He introduced several new methods of practice, and made numerous valuable contributions to ophthalmological literature.

A Philadelphia correspondent of the *Medical Herald* says that the work in each of the medical societies of Philadelphia is done by a half dozen or so men, as in all other medical societies. The rest of the members are mere figure heads in so far as knowledge-giving is concerned.

Among the million of paupers aided by the public charities of England in 1865 there were eight hundred thousand drunkards. Thus poverty and drunkenness go hand in hand. In cold climates the depressing effects of cold and hunger combined seem to induce a greater desire for strong drink.

Mr. Seymour Haden, the surgeon, and world-renowned etcher, said in an address at a dinner in New York that he does not think that the Americans overwork. In fact, he says, that he never saw in all his professional career the least injury to life or health result from what Mr. Spencer calls overwork.

Dr. Cotting, in the *Boston Medical Journal*, says that it may reasonably be doubted whether in even in the city where the fees are nominally the largest, the average income of the profession allows a greater margin for savings than that of the laborer who sweeps the streets or carries the garbage.

A correspondent of the *Medical Record* states that "we have good schools and good men, but I will venture the assertion that out of every five doctors graduating in the whole United States four of them are not competent to intelligently practice medicine, surgery and midwifery."

It is said that the Baltimore Medical College is not on so firm and prosperous a basis as it might be. The number of students is quite small notwithstanding the fact that the fees are said to be quite nominal, and it would not be a startling bit of news to hear at any time soon of a death from inanition.

We learn that Dr. A. B. Lyons, the well-known chemist of Detroit, has been asked if he would accept a government position as chemist in the Sandwich Islands. The salary attaching to the position is between three and four thousand dollars per annum. It must be a great temptation to him to return to his native country under such favorable circumstances.

Dr. Bulkley announces the discontinuance of the *Archives of Dermatology*. This was one of the very best of journals and we regret to lose its familiar face. As such journals are usually published at a loss in all but knowledge and reputation, our wonder has been that he has continued it so long. The specialty is now in the hands of the new publication by the Woods.

Formad says that Koch is correct in saying that the tubercule tissue is always infested with bacillus; but this tubercule tissue is not created on account of, or caused by, the bacilli. These organisms invaded the tissue in question solely because it is a culture medium favoring their predominant development. Formad is also unable to find any morphological difference between the bacillus tuberculosis and any other bacillus.

The president of the West London Medical Society gives as a prophylactic against professional animosities and as a curative of the same, "frequent inter-communication, including an occasional dinner at the Star and Garter." He thinks that such periodical reunions would produce better results that the strictest code of ethics. Beyond doubt the doctor is correct. Lovers of the promotion of professional amity will do well to take heed.

Of Louis, the great French observer, Dr. Holmes says (*Boston Medical Journal*): "He taught us who followed him the love of truth, the habit of passionless listening to the teachings of nature, the most careful and searching methods of observation, and the sure means of getting at the results to be obtained from them in the constant employment of accurate tabulation. He was not a showy, or eloquent, or a very generally popular man, though the favorite, almost the idol, of many students, especially Genevese and Bostonians. But he was a man of lofty and admirable scientific character, and his work will endure in its influences long after his name is lost sight of save to the faded eyes of the student of medical literature."

The commissioner of the London police says that during the past year 15,000 and more persons were missing, 11,000 being under ten years, and 3,000 being adults. Of these were found over 7,000 children and over 700 adults. Sixty adults and one child committed suicide; 154 adults and 23 children were not found; 54 bodies found dead and unknown and unrecognized even from their photographs.

In a recent issue of an electrical journal several cases of death are reported from suffocation by illuminating gas. The unfortunate victims blew out the gas of their sleeping rooms instead of turning it off. The *Herald* remarks that such cases are so common in New York that the coroner pays no attention to them. It does seem as if humanity would dictate the placing by each gas burner in the sleeping apartments of hotels directions for turning off the gas on retiring.

The organ of the homœopathic department of Michigan University says: "Cheap education, a high standard of scholarship and sound medical doctrine are what we offer to the student. We do not teach allopathy because it has a school of its own on the campus. We do not teach eclecticism because the eclectics expect to teach it here themselves some day." Of course, and after an eclectic department has been added to the University must come a place for the spirituals, etc.

Speaking of the importance of prompt relief from suffering, Dr. O. W. Homes (*Boston Medical Journal*) says: "An old woman who knows how to make a poultice and how to put it on, and does it *tuto, cito, jucunde*, just when and where it is wanted, is better—a thousand times better in many cases—than a staring pathologist, who explores, thumps and doubts and guesses and tells his patient he will be better to-morrow, and so goes home to tumble his books over and make out a diagnosis."

The New York correspondent of the Chicago *Medical Journal* says: "The title of professor being in such demand, would it not be 'supplying a want long felt' to establish a school granting a diploma and conferring the title of professor, which means that the owner does not want to advertise (in a manly way), and that he believes in the doctrine of professors, viz., that the big fish were created to eat the little ones." He thinks that as the clinical material of New York and vicinity is too small to supply the needs of the vast numbers of new hospitals being opened and advertised, patients will be shipped in from adjoining states, and possibly a line of steamers be established by the professors to bring clinical material from London, Paris, or the isles of the sea. Surely this must be the wail of one of the disappointed candidates for a professorship. Could aught else than envy suggest that some professors are not what they should be and use their title to advertise with?

Although what is called the "beneficiary system" is so rooted in Baltimore that it cannot be dispensed with, and the real schedule of fees is lamentably below the standard of colleges east and west, still it is hinted that at this institution there are no such things as fees at all. This being the case the only crumb which keeps the machine alive is the low priced notoriety which it brings its supporters." This state of things is bad but not worse than in plenty of other places. Here the light has been let in, elsewhere it has not.

The Irish College of Physicians has followed in the steps of the English college in adopting the following resolution: "That the advertisement of medical books in other than medical publications, and the giving by any of the licentiates, members and fellows of the college, whether for publication or not, laudatory certificates of medicinal or other preparations, or medical or surgical appliances, is misleading to the public, derogatory to the dignity of the profession, and is censurable by the college."

The Emperor of Germany is said to have ordered that in military hospitals phthisical patients must be separated from other patients as carefully as small-pox patients. Dr. Formad, of Philadelphia, says, "That he knows of a young woman suffering from phthisis being locked up and avoided, perhaps neglected by members of her own family, for fear of contagion. Also he has learned of several consumptives who have become worse from the mortification of having their friends avoid them, some even going so far as not to shake hands with them. All this has resulted from the impression that phthisis is a contagious disease due to a parasite.

A Philadelphia correspondent of the Buffalo *Medical Journal* says of the applicants for relief at the numerous dispensaries of that city: "I rarely see one, unless appearances are deceptive, who could not pay for the attendance of a physician. Apparently, however, no questions are asked, and the applicant receives not only advice but also medicine free." That such a system is an injury to those of the younger members of the profession not connected with the dispensaries is obvious. But the same remark is equally true of all free dispensaries in all cities, not excepting Buffalo or Detroit.

A Baltimore correspondent of the Cincinati *Lancet* has been discussing the medical schools of that city. Among other things he says, "A Baltimore physician is simply nothing if he is not a professor, and out of this lamentable fact have grown no less than four medical colleges. And what is still more deplorable, they are all in full operation; for though to the public gaze they may wear the badge of prosperity still within the depths of their own hearts, these laboring teachers groan under a strain at once mental, physical and pecuniary. Once being enriched by the word Professor attached to their names, they give it up as they would their last dollar or their lives."

In a late address published in the *Medical Times*, Dr. A. H. Smith makes some capital points. The entire address is worthy of its author. He says that persecution will not destroy charlatanism. Nor will the affiliation with it, meeting it, shaking hands with it, under the plea of generosity and the need of moderating an unjustifiable intolerance. "Not only will the plan proposed in New York not diminish quackery, but it will promote and develop the vilest and most detestable form of it, in the persons of a class ot charlatans whose only purpose is to rob the community under the pretence of practicing either system of medicine or selecting the best features of each. The root of all charlatanism is the love of money, and the man who is devoured with this sordid passion soon runs into unrestrained license, and little by little forgets he is the minister of science and the priest of humanity."

The *Medical News* gives some facts from advance reports of the tenth census. From these it appears that the actual mortality for the whole of the United States during the census year was not less than 17 nor more than 19 per thousand. For the whole of England during the same year it was 20.5 per thousand, and for Scotland it was 21.3 per thousand. The figures also show that "both diphtheria and enteric fever are most prevalent in small towns and rural districts which have no general water supply or systems of sewerage, but obtain their water from springs and wells and store their excreta in cesspools or vaults. In the north Atlantic and lake regions the mortality from consumption is highest in the small towns and rural districts, while on the Gulf coast the mortality is highest in the city of New Orleans, in which it is higher than in the northern cities. This is probably due to the bad drainage, etc., of New Orleans."

Of Velpeau, Dr. Holmes (*Boston Medical Journal*) says: "He came to Paris in wooden shoes; starving, almost, at first, he raised himself to great eminence as a surgeon and as an author, and at last obtained the professorship to which his talents and learning entitled him. He had not what is called genius, he was far from prepossessing in aspect, looking as if he might have wielded a sledge-hammer rather than the lancet, but he had industry, determination, intelligence, character, and he made his way to distinction and prosperity, as some of you in the struggle for life will have done before the twentieth century has got half way through its first quarter. A good sound head over a pair of wooden shoes is a great deal better than a wooden head belonging to an owner who cases his feet in calf skin; but a good brain is not enough without a stout heart to fill the four great conduits which carry at once fuel and fire to that mightiest of engines."

While commenting upon the late disturbance at the University of Michigan, in connection with its Medical Department the *Louisville Medical News* remarks, "Faculty quarrels will ultimately destroy the efficiency and prosperity of any educational institution. It is only in harmonious co-operation, keeping constantly in view the best interests of the institution and subordinating individual preference and interest, that a faculty can best advance the prosperity and usefulness of any school, college or university." Amen. Would that such a state of things could exist at our State University. Or rather would that some medical school could be pointed out as an example in these respects to our State University. The individuals composing the several faculties look out first and last that the "Institution" is made to subserve their private interests. This is and has been the great vice of all medical colleges. The Medical Department of the Michigan University is not worse than the majority of medical schools. Numberless times we have heard the most prominent medical teachers remark that each Professor must first look out for his own interests, then that of his colleagues, then that of his school and lastly that of the profession and that of the people. Besides their lives abundantly exemplify the fact without any word testimony. That there are exceptions to this general character of members of medical faculties we well know but they are simply sufficient to prove the rule.

On November 20th died Henry Draper, M. D., of New York City, aged about forty-five years. The cause of his death is said to have been pleurisy. He was physician, professor of chemistry in the University Medical School, astronomer, physicist, etc. Most emminent was he as a man of science. His large telescope at his residence on the Hudson, and his large well appointed workshop, or laboratory at his city residence attest to the earnestness of his studies. His self sacrifice was illustrated by his labors in connection with the rebuilding and equipping of the new building of the University after the old one had been destroyed by fire. His time, his executive ability and his personal influence and his money were all called upon to aid in the work. As professor of physiology he remained in connection with the school till 1873. Among his works may be mentioned that he was the first to photograph the fixed lines of the spectra of the fixed stars. About the same time he discovered the gelatino-bromide process in photography. Perhaps his greatest work was the discovery of oxygen in the sun in 1877. He wrote but one book. Quite a considerable number of scientific articles are left by him in the several journals devoted to the publication of scientific investigations. He is one of the few men who have won lasting remembrance in the records of all time. Real scientific investigation, of a kind not surpassed even on the continent of Europe in the government endowed institutions, with unlimited resources, he has done. Humanly speaking he had but just entered upon a career of research. While most of his life was spent in researches outside the domain of practical medicine, he was yet a member of the medical profession and delighted to do it honor. He is an example worthy of the emulation of all young men entering upon a professional career. Especially is a similar career open to those possessing fortunes independent of their professional incomes.

Editor's Book Table.

Two Hard Cases.*

Under this title Dr. W. W. Godding discusses two interesting psychological problems. The first case is that of a young man whose mental abnormalities took the form of acting on imperative conceptions. This type of insanity, recognized by the German authors under the term "primare Verructheit in Zwangsvorstellungen," is a variety comprehended under that much abused term, moral insanity. That such form of insanity exists, no honest scientific alienist denies. In favor of its existence we have clinical evidence furnished by Rush, Ray, Walker, Nichols, C. Hand, N. Folsom, McFarland, Fisher, Bannister, Hughes, Hammond, Spitzka and Workman in America; Tuke, Sankey, Maudsley, Winslow, Crichton Browne and Prichard in England; Esquirol, Folret, Foville, Marcè, Luys, Doutrebeute and Delasiauve in France; Krafft, Ebing, Meynst, Griesinger, Westpha, Schüle and Emmengnaus in Germany; Jesperseu in Denmark, Pasternazki and Donillo in Russia, Buccola and Livi in Italy and Gené in Spain. Against these authorities stand only a few American medical politicians, made experts by the grace of the "machine." That such a psychosis exists the first case cited by Dr. Godding clearly demonstrates. The narration unconsciously illustrates that Dr. Godding has that forbearance and charity carrying out the maxim "Do as you would be done by," which eminently fits him for the superintendency of an asylum for the insane.

The two hard cases are the case of moral insanity, just mentioned, and Guiteau. That Dr. Godding should regard this criminal as insane is foreshadowed by his scientific treatment of the first case. Toward Guiteau Dr. Godding occupies a somewhat peculiar position. Superintendent of the only insane asylum under ægis of the National Government, he was the first alienist called on to examine the criminal, and he then pronounced him, as he does now, insane. This is a state secret not revealed on the trial and known only in Washington. In consequence of this opinion the prosecution made henceforth sure of the opinions of its experts in advance before calling them to the stand. Written as the book is chiefly for the people, still in no popular work are such sound doctrines promulgated on insanity. With a mind like that of Halifax, more severe in language on his allies than his opponents, Dr. Godding tells the hackneyed story of Guiteau's life and trial with infinite tact and pathos. Courteous as is his language to his opponents, yet simple facts of science so inimitably told, convict these opponents with greater logical skill of being "either liars or ignorami" than any impassioned diatribe. To the statement that insanity is not inherited, though taint and tendency may be, he opposes the simple fact of the existence of children intellectually morbid from the start. His estimate of Guiteau was substantially that of Spitzka, a case into which a large congenital element entered. The judgment of Dr. Godding has been justified by the macroscopical and microscopical lesions found on autopsy. It has often been said that Sir William Watson is the Macaulay of Medicine. Judging from the present work Dr. Godding well deserves to be likened to Addison. In playful satire, in pathos, in clear pictorial description, the present little volume is unequaled in quasi-medical or medical works. It is issued by the publishers in their well known "little classic" style.

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*Two Hard Cases. By Dr. W. W. Godding, Washington, D. C. Houghton, Mifflin & Co., Boston. 1882.

JAS. G. KIERNAN.

Gross' System of Surgery.—Sixth Edition.*

For twenty-three years this work has been before the medical profession. Its successive editions have recorded the march of development of surgical science and surgical art. For nearly half a century its author has been eminent as a teacher in this branch of the profession. His untiring devotion to it is shown by the wonderful manner in which he has kept pace with all modern progress. These magnificent volumes of nearly twenty-four hundred large pages,bear witness to his ceaseless labors for the profession that he has loved so well and which has ever delighted to do him honor. They are a fitting crown to a long, successful and honored career. They constitute a monument more noble and more enduring than the pyramids of Egypt. All his students and personal friends and all lovers of the surgical branch of the profession will be delighted to add still another to the numerous editions of Gross' System of Surgery, now standing side by side in their libraries. These record the steps of growth by which a powerful mind has come to master so completely this complex and far reaching subject. He says, "the work should be regarded as embodying the results of a large personal, as well as of a ripe, experience, of extensive reading, and of much reflection; in a word as exhibiting surgery as I myself understand it, and as I, for so many years, conscientiously taught it." Those who will take the trouble to make the comparison with the previous edition will observe that every chapter has been altered to meet the present condition of surgery. It is a real revision and not one simply confined to the title page date. To specialists in several branches he has left the labor of revising the chapters on the eye, ear, the throat and chest, the nose, cranio-cerebral topography, oophorectomy, the treatment of spinal diseases with the plaster of Paris jacket, etc. Hence these portions of the work are equal to the general portions. Some sixteen hundred engravings illustrate this edition, six hundred of them are original. The progress of the last fifteen years he accords to the active agents in making it, the ovariotomists, antiseptic surgery headed by Lister, specialism, operative surgery, surgical pathology, etc. He says, "the time has gone by when any one practitioner can boast a monopoly of skill or of reputation in this or that field of surgery; all have a hand in it although some are greater and wiser and more competent than others. In the marvellous revolution now in progress it is gratifying to find that American surgery is fully abreast of the surgery of other nations."

Among other elements he gives the following as the qualities of a good operating surgeon. "A firm and steady hand, a keen eye, and a most unflinching courage which can disregard alike the sight of blood and the cries of the patient. Further if he is not honest in his purposes or scrupulously determined in every case to act only with an eye to the benefit of his patient, he is not worthy of the name he bears, or fit for the discharge of the solemn duties which he assumes. In a word such an operator is not to be trusted, for he will be certain, whenever opportunity offers, to employ the knife rather for the temporary eclat which may follow its use, than for the good of the individual whom he unnecessarily tortures. He will not hesitate to amputate a limb, although the patient should die the moment he is removed from the table, or to tie the carotid artery for a malignant disease of the eye although he knows full well that such an operation never has in a single instance been of the slightest benefit to the patient. Such men, of whom there are even yet unfortunately too many in the profession, deserve the name of knivesmen and knaves rather than surgeons and honest men. The question is in every case, is an operation necessary to save life or to place the individual in a position calculated to promote and secure recovery? If this question can be answered affirmatively, the operation should by all means be proceeded with, but if it be ascertained, clearly and satisfactorily that it presents no such prospect, both humanity and common sense dictate the propriety of declining it. It is a sad and humiliating spectacle to see a surgeon cut off a limb, or remove a carcinomatous tumor, merely for the sake of having it said that he performed an operation. The conscientious and enlightened surgeon, unlike the heartless soldier, carefully respects life as a great boon and uses every possible endeavor to preserve and prolong it."

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*A SYSTEM OF SURGERY, PATHOLOGICAL, DIAGNOSTIC, Therapeutic, and Operative. By Samuel D. Gross, M. D., LL. D., D. C. L. Oxon., LL. D. Cantab. Illustrated by upwards of sixteen hundred engravings, sixth edition, thoroughly revised and greatly improved. In two volumes, of about 1200 pages each. Philadelphia: Henry C. Lea's Son & Co. 1882. Half Russia. For sale by John Willyoung, Detroit, Mich.

In regard to the effect of fear upon the results of operations he says, "nothing depresses the powers of life more injuriously or interferes more effectually with the reparative process than fear. It lowers the heart's action, disorders the secretions, and not unfrequently leads to the worst results." The following illustration is quoted from Cazenave of Bordeaux. "An old man aged sixty was about to undergo the operation of lithotomy. The surgeon was about to introduce the staff, when the patient who had exhibited entire calmness and serenity during the preparations, was observed to become pale and faint, and in the course of ten minutes in spite of all that could be done, he expired. The instrument had not even touched him when the attack began."

Many similar cases are on record. Anger, grief, homesickness, all exert a deleterious effect upon operated cases.

But we must leave these very attractive volumes, and their more attractive author as monuments of the development of American surgery during the nineteenth century.

The publisher has issued the work in his very handsomest style.

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HERRICK ON SOME OF THE SIMPLE METHODS OF OPERATING UPON THE LACERATED CERVIX. An eight-page reprint from the Obstetrical Gazette.

Massachusetts State Medical Society Transactions for 1882.*

This volume contains four papers besides the minutes of the meeting, etc. Dr. James P. Lynde, in a paper upon Infant Mortality, its Causes and Prevention, takes the ground that the essential causes are due to bad feeding, and that infants' lives are to be saved by proper feeding. He quotes the expression of opinion on this subject by the meeting of German physicians, 1881, and endorses it. It is as follows:

"Now and evermore be it agreed unanimously, that these preparations can in no way be substituted for mothers' milk, and as exclusive foods during the first year are to be entirely rejected."

The preparations referred to were the infant foods. For himself, Dr. Lynde says: "I stand at this point: cows' milk is the only substitute for mothers' milk. Our whole endeavor must be to procure and use this in the best way. Let us attempt in the future to put it in the power of even the poorest to obtain good, pure milk for his children. United work on the part of the doctor, experimental pathologist, physiological chemist, and land owner, can alone fill up the gaps in our knowledge of dietetics."

Many illustrative cases are given to show the good effects of pure, fresh cows' milk in the feeding of infants who could not get mothers' milk.

Dr. F. H. Williams, in a paper on Iron, shows by experiment that it has, without doubt, poisonous qualities; that the symptoms which it causes come chiefly from the alimentary canal, and that in fatal cases it diminishes the amount of carbonic acid in the blood; that the action of iron in the body resembles that of arsenic and platinum, and that we are justified in believing that the action of iron on man in excessive doses would be similar to that observed in animals. Clinical evidence adduced shows that in excessive doses iron is capable of doing harm. It also seems that the good following its use is due to its action in promoting digestion and assimilation, rather than to directly increasing the number of blood corpuscles.

The paper by Dr. Chas. Folsom discusses some obscure mental symptoms of disease.

Dr. W. W. Gannett discusses the relation of mould fungi to disease. His conclusion is, that, so far as our present knowledge goes, there is but one disease in man, namely, actinomycosis, which fulfills the scientific conditions necessary for the positive belief that the fungus is a cause of the disease. Scientifically, it cannot be said to be proved that the fungi which are present in the mould diseases of the skin are the cause of the disease.

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*TRANSACTIONS OF THE MASSACHUSETTS STATE Medical Society, 1882. Boston, Mass. Paper; pp. 76.

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Bartholow on the Practice of Medicine.—Third Edition.*

The first edition of this work was issued in 1880. The rapid succession of the several editions sufficiently indicate the estimate placed upon it by the profession at large. It is enough to say that in this edition the author has so revised his text as to fully express his latest views upon the several subjects discussed. It is hardly to be expected that the book should be perfect, but it has some decidedly popular features. Thus it is concise, it is readable throughout. A combination of these two excellencies are enough to account for its popularity. Further, its therapeutics are positive and definite. This met the special want of the profession in that it furnished something for it to rest upon. Again, while given in the author's own language it really represents a very wide range of reading and exhibits a wonderful memory and equally wonderful power of digesting the work of others and spreading it again before the world. The volume before us is larger than the first edition and bids fair to increase with successive ones.

An index of authors as well as of subjects is appended, rendering reference easier than formerly.

The Appletons have issued it in their usual substantial and attractive style, making it an ornament to any library.

◆

Potter's Questions on Human Anatomy.†

This is the first of a new series of books designed for students preparing for the quiz class and examinations. The series is called "Quiz Compends." The one before us by question and answer calls to mind the essential points of general human anatomy. Used as an aid it doubtless will help to lighten the task of mastering this subject. But if used as in any sense a substitute for larger works it will certainly be "a blind leader of the blind." It seems to us that the simple statement of the questions without any answer would serve a better purpose in aiding the student to a thorough knowledge of anatomy.

◆

Hewett on the Diseases of Women.—Fourth American Edition.*

This is the first of a new series of books that the publishers are offering the medical profession at very low prices. The series is called the "New Octavo Series." Thus the volume before us contains all that is in the more expensive editions, is printed on good paper and bound in strong paper for one dollar and fifty cents. As the volume contains seven hundred and fifty pages it will be seen that the price of the work is merely nominal. The work is largely an elaboration of the author's views of "mechanical" uterine pathology. He boldly maintains his views against all comers as a demonstrated system. Though it has not been universally accepted it will repay study. The vast amount of collateral knowledge here presented will prove helpful in many ways to the student of gynecology. At the price at which it is offered there is no excuse for the work not finding its way into every medical library.

The work is printed by the special consent of the author and his English publishers—the consent having been obtained by the payment of a large amount of money. In brief, the right of the book has been bought and not stolen.

◆

Ashhurst's Principles and Practice of Surgery—Third Edition.†

In this edition the author has incorporated such an account of the more recent observations in surgery as he deems real improvements. Though the revision has been extensive and considerable new material added, such typographical changes have been made as to not greatly enlarge the volume. The scope of the work is different from that of many works on surgery. It aims at a concise, clear, condensed, comprehensive description of the modes of practice now generally employed in the treatment of surgical affections and a plain exposition of the principles upon which these modes of practice are based. With such an object the author has taken from all writers on the subjects discussed. The work is in the best sense of that term a compendium rather than an exhaustive treatise on surgery.

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*A Treatise on the Practice of Medicine for the Use of Students and Practitioners. By Roberts Bartholow, M. A., M. D., LL. D. Third edition enlarged and revised. New York: William Wood & Co. 1882. Cloth, pp. 918. Price, $5.00. For sale by W. L. Berry & Co., Detroit, Mich.

†Questions on Human Anatomy. By S. O. L. Potter., M. A., M. D., with sixty-three illustrations. Philadelphia: P. Blakiston, Son & Co. 1882. Pp. 139, cloth, price $1.00. For sale by John MacFarlane, Detroit.

*The Diseases of Women, Their Diagnosis and Treatment, including the Diagnosis of Pregnancy. By Graily Hewett, M. D., London. Fourth American from the last revised and enlarged London edition, with one hundred and thirty illustrations. Philadelphia: P. Blakiston, Son & Co. 1882. Pp. 750. Paper, price $1.50. For sale by John MacFarlane, Detroit, Mich.

†The Principles and Practice of Surgery. By John Ashhurst, Jr., M. D. Third edition, enlarged and thoroughly revised, with five hundred and fifty-five illustrations. Philadelphia: Henry C. Lea's Son & Co. 1882. Pp. 1060. Half Russia. For sale by John Willyoung, Detroit.

It will find a warm welcome from students of this branch of medicine. The publishers have issued it in their best style.

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Farquharson's Guide to Therapeutics and Materia Medica.—Third American Edition.*

This excellent little work has met with a warm reception from both medical students and the medical profession. The present edition is improved all that it was possible to improve it in accordance with the plan upon which it was designed. The arranging of the physiological effects of drugs in one column and the therapeutic effects in a parallel one, has proved most convenient to all seeking to ascertain both at the same time. The work has also encouraged a more frequent recourse in thought to the scientific action of remedies, and so has promoted progress. We cordially commend it to such as seek a help in their study of the materia medica or therapeutics.

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Bartholow on Medical Electricity.†

It is but little over a year since the first edition of this work was issued. This abundantly exhibits the estimate in which it was held by the profession. This edition contains many additions rendering it more expressive of the present views and practice of electrologists. The author has also developed more fully the modern methods of ascertaining and expressing current strength, tension, resistances, etc. The polar method and the action and uses of the magnet are more fully described. The work is thus enlarged in every direction. It is written in the author's usual attractive style and will abundantly repay the careful reading of every general practitioner.

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CHEMICAL WORK FROM THE LABORATORY OF THE University of Michigan. A fifty-four-page reprint from the Physician and Surgeon of Ann Arbor.

The contributions are from the several students and teachers of this laboratory. The first paper by Dr. Vaughn gives an elaborate study of the urine in a case of cancer of the liver. The following results were obtained: The small amount of urine was due to obstructed circulation. Urine in cancer of the liver deposits urates colored more or less red, and this color becomes darker on exposure to the air. The formation of the bile pigments continues even in structural diseases of the liver, which involve nearly the whole of the gland substance. The formation of bile acid is arrested in the later stages of cancer of the liver. In this formation of bile the functional activity of the liver is concentrated for the most part upon the elaboration of bile acid. Taurin and glycin are formed in the body even when the greater part of the liver is destroyed by abnormal growth. Unoxidized sulphur is present in the urine in large amount. The amount of urea is reduced to a minimum and then remains stationary till death. The quantity of uric acid is increased and urates are deposited. The phosphoric acid remains about the same in quantity as in health. The sulphates and chlorides are greatly diminished. Leucin and tyrosin appear and may be detected by microscopical inspection after concentration, and may be approximately estimated by the method given.

Mr. S. Crombie, from eight samples of ground coffee, found chicory in six, and peas in all but one; wheat is the next most common form of adulteration, corn and acorns being the least.

Mr. E. B. Longwell, from six samples of cream of tartar obtained from the grocery stores, found chalk in four, the others being pure. The mixtures containing chalk were sold at the lowest price.

Among the other articles examined are hydrochloric acid, condensed milk, benzoic acid, sulphuric acid, nitric acid, arsenic in wall paper, sulphurous acid in the sulphites, physiological action of the citrate of caffeine, alcohol in malt liquors, alum in patent flour, analysis of veratrum viride, chemical examination of chekan leaves,.and a considerable number of other substances.

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*GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By Robert Farquharson, M. D Third American from edition revised by the author. Enlarged and adapted to the United States Pharmacopœia by Frank Woodbury, M. D. Philadelphia: Henry C. Lea's Son & Co. 1882. Pp. 526. Cloth. For sale by John Willyoung, Detroit, Mich.

†MEDICAL ELECTRICITY, A PRACTICAL TREATISE on the Applications of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL. D. Second edition enlarged and improved, with one hundred and nine illustrations. Philadelphia: Henry C. Lea's Son & Co. 1882. Pp. 287, cloth. For sale by John Willyoung, Detroit.

WARING ON THE SEPARATE SYSTEM OF SEWERAGE. A sixteen-page reprint from the American Architect.

This is a reply to certain criticisms by Eliot C. Clarke, Esq., on a paper published in the report of the State Board of Health, etc., of Massachusetts. Waring thinks that the result of the discussion thus far is to show that a sewer is necessary where cellars are so low that they must be drained by pumping, and where the cost of the combined system cannot be afforded; that its economy is very great; that it is entirely efficient, with a fall of one in 500; that surface drainage can be prevented from causing inconvenience or damage worth considering, no matter what the size of the town, for an outlay which, compared with the extra cost of a system of combined sewers, would be trifling; and last, and most important, that while combined sewers cannot possibly meet the necessary sanitary requirements, separate sewers can be made absolutely safe, affording the only means now known for perfect sanitary drainage of a town of any size, and that for these reasons the separate system is always advisable.

JAMES ON THE TREATMENT OF CONSUMPTION. A four-page reprint from the Virginia Medical Monthly.

Briefly the author avows his faith in the parasitic pathology of consumption. His treatment for many years has been founded upon this supposition. Of eighty-five cases of which he has kept a record, he thinks that twenty-three cases are cured, the remainder having either died or being still doubtful. All of those reported as cured were treated from the commencement of the trouble. His treatment is not markedly different from that most commonly employed: quinine, carbolic acid by inhalation, glycerine and alcohol, rest, pure air, timely exercise, suitable food, etc. Success in treatment may be estimated by the ability to keep down the temperature.

BULKLEY'S ANALYSIS OF EIGHT THOUSAND CASES OF SKIN DISEASES. A thirty-page reprint from the Archives of Dermatology.

As it is based upon the work of a careful observer, it has a positive value to students of this branch of medicine.

DANA ON THE FUNCTIONS OF THE INTESTINAL JUICE. An eight-page reprint from the Medical News.

He thinks it well established that the intestinal juice in some animals supplements the action of pepsin and trypsin on proteids and turns hydrated starch to sugar. He regards intestinal dyspepsia as due either to the stomach's throwing insufficiently digested food into the intestines or to atony of the muscular walls and defective absorption. He regards the trouble rather with the muscle than with secretion. The stomach may be at the bottom of the trouble all the time, unloading itself with indecent haste, or with its work half done.

GIBNEY ON THE DIAGNOSIS OF POTT'S DISEASE OF THE SPINE, BEFORE THE STAGE OF DEFORMITY. A thirty-page reprint from the Boston Medical and Surgical Journal.

This paper is based upon a study of one hundred and eighty-two new cases seen during 1881. From these data the writer insists that in every case the diagnosis should be made before the stage of deformity is reached. It matters not where the location of the vertebral caries, if the physician cultivate a habit of submitting every case of disease in children, wherein the least element of chronicity enters, to a thorough examination.

COMSTOCK ON THE FEMALE PERINEUM. An eight-page reprint from the St. Louis Clinical Review.

In this paper the author describes the perineal body, claiming that it has been imperfectly done by most writers upon anatomy and diseases of women. He points out the variety of accidents which may happen to it during parturition. He insists that every obstetrician should carefully examine every case after delivery and rectify any damage that has resulted from the process. All is true and well said.

BULKLEY ON THE MALIGNITY OF SYPHILIS. A twenty-nine page reprint from the New York State Society Transactions.

It contains an analysis of four hundred and fifty cases of the disease. He thinks that the evidence thus adduced proves that syphilis cannot be spoken of as a benign disease although certain cases may run a very mild course.

COOMES ON THE VALUE OF LARYNGEAL SYMPTOMS IN DIAGNOSIS OF PHTHISIS. A seven page reprint from the Archives of Laryngology.

The author thinks that, given a case with persistent cough, impairment of voice, and congestion of the vocal cords, we have positive evidence of the first stage of phthisis.

PLAYTER'S REPORT ON THE CAUSES OF CONSUMPTION. A ten page paper based upon the statistics of two hundred and fifty cases gathered by means of circulars addressed to the profession of Canada and the States of New York, Ohio, Michigan, Indiana, Illinois, and Louisiana.

The deductions are quite the same as those obtained by other investigators by the same method. Perhaps the evidence adduced, showing the physical defects of body in the subjects of this disease is the most important.

NEBRASKA STATE MEDICAL SOCIETY, REPORT OF COMMITTEE ON MEDICAL LEGISLATION. A seven-page paper.

It shows that there are five hundred and sixty-seven graduates practicing in that State, and at least four hundred who have not graduated. It recommends the establishment of a State Board, before which all would be compelled to pass an examination before entering upon the practice of medicine.

NORTH CAROLINA STATE BOARD OF HEALTH, REPORT OF THE SECRETARY.

This paper occupies sixty-six pages and fully explains the work of the Board during the year preceding. The amount accomplished was not much, but there is the promise that the future will see greater things performed.

NEWMAN ON ELECTROLYSIS IN THE TREATMENT OF URETHRAL STRICTURE. A forty-page reprint from the Medical Record.

The author says that the method has given him entire satisfaction, and that during an experience extending over ten years hundreds of cases have needed no other treatment.

KINLOCK ON A GUNSHOT WOUND OF ABDOMEN TREATED BY OPENING CAVITY AND SUTURING INTESTINES. A three-page report.

The operation was a success, but the patient died.

JENKS' CONTRIBUTION TO SURGICAL GYNECOLOGY. A twenty-one-page paper reprinted from the Illinois State Society Report for 1882.

It gives the modern views respecting several surgical procedures recently utilized in the treatment of disorders of women. To the accounts of others the author adds his own comments, explaining his private modes of practice.

SELL ON THE TREATMENT OF THE OPIUM HABIT BY THE AVENA SATIVA OR COMMON OATS. An eight-page reprint from the Medical Gazette.

The claim set forth here for oats surpasses our powers of credulity. But if it be proved we shall be glad to accept the facts. Certainly there is no proof here worthy of belief.

OLIVER'S OPENING ADDRESS AT THE MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

This is full of good advice to students and of the best features of the college in which the address was given.

MARINE HOSPITAL REPORT ON THE YELLOW FEVER EPIDEMIC OF 1882 IN THE STATE OF TEXAS. A sixty three page pamphlet occupied with a mass of correspondence relating to the matter.

Doubtless a fuller report will follow this, of a more readable character.

BLISS ON FEEDING PER RECTUM. A sixteen-page paper dealing with the subject of rectal alimentation.

It contains nothing new or that has not been better stated before.

BOWLING ON THE LIFE OF DR. JOHN M. BRIGGS. A twenty-page reprint from the Nashville Journal of Medicine and Surgery.

This is a fitting tribute paid to a wise physician and a noble man.

E. HEFFENGER ON ELEPHANTIASIS ARABUM IN THE SAMOAN ISLANDS. A seven-page reprint from the Boston Medical Journal.

An interesting account of a tropical disease.

DETROIT LANCET.

VOL. VI. February, 1883. No. 8

Original Communications.

A Paper on the Close Relation and Probable Identity Existing Between Scarlatina and Diphtheria.

BY A. HURD, M. D., FINDLAY, OHIO.

Read before the Northwestern Ohio Medical Association, at Lima, Ohio, December 12th, 1882.

I SHALL commence with the broad statement—perhaps paradoxical—that there are but few specific and generic diseases; and that the great number and variety of diseases which we are called upon to treat, and which come under our observation and are subjected to our analysis, really are not distinct and cardinal forms of disease, but are only a modified form of disease, belonging to a generic class of diseases, which are produced, modified and changed by extraneous causes, personal habits, idiosyncrasies, and occult causes, of which we are too careless to observe and note the real ætiology, or too much wedded to names to admit, and mark a distinction in the various forms of disease which present themselves to us for investigation. Still it is not for me to be too dogmatic in the statement of the subject, because I am not absolutely convinced that I am perfectly correct in the ætiology of the diseases under consideration, and that the facts resulting from experience and observation will bear me out in the position taken. I need not mention the fact—for all careful observers are fully aware—that we have a large family of resultant diseases,—but, I think, but few hybrid diseases—with a great variety of symptoms, seemingly of very different pathological conditions, and causes manifested, which, when we trace them back to "their father's house," belong to the same group, and are generically of the same causation. Take the different varieties of skin diseases: Scrofula, leprosy,—as seen in the Sandwich Islands—etc., etc., (I need not particularize) and according to Prof. Gross, dermatologists, syphilologists and the general pathologists, nearly all of them can be traced to a common parent—syphilis. And who will dare gainsay their opinions? Because these specialists represent the best thought on such subjects, and constitute our authority.

Then again, the occult cause of disease, malaria, miasm, or whatever you please to call the poison, and how many different and modified types of diseases you will notice in that relation, viz., the different forms of intermittent, remittent and typho-malarial fever, (the latter a misnomer) etc., etc., so different in their behavior and general symptoms that one would hardly think they had a common origin. But still, the doctor will look wise, for he has been taught no better, and tell the patients—none of them showing the same symptoms in common—that they are all suffering from that mysterious, occult something called malaria, and probably he is correct. Look if you please at the more particularly infectious diseases, those that are not only spread by absolute contact, but by emanations from the body; the secretions, etc., are caught up in the air, and enter the circulation by absorption or inhalation, as germs, spores or bacilli, and thereby cause disease, and note the various forms and diseased conditions manifest in the different patients suffering from the same disease, with almost completely dissimilar symptoms, all supposed to have a common cause producing them, and how do doctors account for these seemingly contradictory manifestations? merely, the cases are modified by extraneous forces, the patient's surroundings and his physical condition. I need not point out in a particular manner these differences, because all present, if they will reflect one moment, will at once admit the force of the statements made; and that they have all, at some period of their professional lives, felt doubts as to the correctness of their forced conclusions. But if we simplify our theories, if we throw aside the mysterious somethings—seen by the curious—"sometimes figments of the brain," the germs, spores, etc., which are supposed to be specific, and are no doubt thought to be so in the original investigator's office, but occult in practice, and which are left to the common honest plodding practitioner in his daily experience at the bedside, to approve or reject, for he cares but little about theories, but treats these diseases with good success, because he treats conditions and symptoms rather than names, and adopt the more rational theory, more in accordance with facts, that, *per se*, there are but few specific generic diseases, or groups of disease, and as in the vegetable kingdom the classes and genera are few, the varieties vast, so in the pathological field, then we shall more easily and fully comprehend the true causes of disease, and treat them more rationally and successfully. It requires no great reach of the imagination, or elasticity of our professional conscience to acknowledge the truth, that we are all more or less in doubt and at sea in reference to the real causation of disease, and that the theories piled up, plus all our doubts, multiplied by what we do not know, equals an amount of professional, negative and empirical truth, which should be a shame to the votaries of an exact science to acknowledge. But I am not quite a "Doubting Thomas;" still I should like to see the exact facts and truths upon which we rely to establish our status and found our reputation in community as the exponents of an exact, learned and scientific profession rather than the doubtful cross upon which we, as a class, are being crucified. But again to the subject—what facts have we to establish the truth of our proposed thesis?

You are all familiar with the general characteristics, the course, etc., of the two diseases, so called, scarlatina and diphtheria. You know the general symptoms present in each, you can trace their analogies, you have learned their pathology, if not their etiology. The parts affected—the throat, the lymphatic glands, the skin, the mucous membrane and the general constitutional disturbance of the system. Now, keep all of these associated symptoms in your minds, the co-relation of facts and conditions in both, and can you not see that both diseases present many clinical phases common to each? I cannot, of course, enter into a detailed account of the varied symptoms and full clinical history which they present in their progress, or fully elaborate the subject, because it is too vast, wide and deep, for the time given me and my poor capacity to develop. But it shall be my province to present such facts as I can, the result of reading, observation and personal experience, as will at least direct your attention to the subject under consideration.

I am not a firm believer in hybrid diseases, that you can have in the same patient at the same time two distinct specific and cardinal diseases manifesting their distinct symptoms and peculiarities, probably no more than that two bodies can occupy the same space at the same time. For I think there are great fundamental laws which govern the action of poisonous elements upon our physical structures, modified, no doubt, somewhat by vital forces, etc., as well as in the chemical forces and laws which are manifested in the material world, and which are known to be uniform and exact in their action and results. So, therefore, if there is any analogy in the operation of vital and material forces in nature, the conclusions are plain.

During the year 1864 we had in our city an epidemic of diphtheria, so called by some practitioners; others claimed it was scarlatina. I then held to the belief that we had both varieties and forms of disease depending upon a common cause, because we had both the symptoms and pathological conditions common to the manifestations of both forms of disease, during the progress of the epidemic; sore throat with exudative deposits, or false membrane, enlarged lymphatic glands, etc., with the characteristic eruption and without the eruption. We had in the same families the various sequelæ common to both forms of disease, viz.: paralysis, acute rheumatism, dropsy and croup. Notably in one family of which I have notes of the cases, two boys and two girls; one boy and girl had eruption on skin well marked and characteristic, the others had none; all had throat complication. The youngest died from croup and two of the others had sequelæ; one had dropsy depending upon kidney complication, another had partial paralysis, while the remaining one had no sequelæ.

As usual with doctors, we disagreed, and to settle the point of difference, I was instructed and requested to put the facts and symptoms on paper and send them to Prof. Chas. D. Meigs, of Philadelphia, which was done, and I hope the association will pardon me while I give a part of his letter. It bears date January 31, 1864:

"DR. HURD—SIR:—I have to thank you for your favor of the 20th inst., which was handed me at my home in the country yesterday eve. In the last number of the *American Journal of Medical Sciences*, January, 1864, is a letter from me to the editor, Dr. Hayes, in which you will find expressed nearly the same opinion as yours, on the subject of diphtheria, with an indication of treatment, etc. I should be glad to refer you to that for my answer to your inquiries, but, as you may not have an early opportunity to meet with a copy, I shall make some suggestions, etc., in accordance with your request. But before I go any further, it is proper for me to say that I am very much pleased to observe that your judgment and mine do so very exactly agree as to the sameness of diphtheria and the old-fashioned putrid sore throat, as well as that on the common nature of the two diseases, diphtheria and scarlatina. You will find I have said so in my paper above mentioned."

In another letter, date February 9, 1864, Dr. Meigs makes the further statement, even stronger than the first, viz.: "In my opinion there are not a great many cardinal diseases; diphtheria is not one of them, but belongs to a cardinal form, which is scarlatina. No person can prevail upon me to consider your epidemic as other than some modification of the cardinal scarlatina."

Again, I find in the article alluded to January, 1864: "Mankind are much misled by names—indeed it is quite true to say that names are things. The new nomenclature introduced by the French people, of diphtheria, is a substitute for the plain old term, putrid sore throat. And a man conversant with this putrid sore throat, and equally familiar with epidemic scarlatina, cannot, I think, discover any shade of difference between scarlatina and diphtheria, except in the presence or absence of the eruptive symptoms. In the midst of the most intense prevalence of scarlatina, cases are often met with in which none of the cutaneous symptoms are observable, and such diphtheritic forms are indeed the most dangerous and the most fatal. They furnish examples of what is called by the vulgar and even by physicians, of scarlatina 'struck in.' Now, the mucous system is certainly nothing more nor less than an internal skin, minus the dermal membrane, and is liable to diffuse inflammation as the skin itself, and when inflamed it tends to produce inflammatory exudation, etc."

Now, if the foregoing quotations from Prof. Meigs teach good doctrines, you will readily apprehend the reason why we find an exudation of false membrane on the mucous surfaces in both forms of disease—both scarlatina and diphtheria—but it does not gainsay the fact that the deposit results from a common cause.

Again, in Sir Thomas Watson's work on "Practice," etc., page 996, we find the following explicit statement in strong language: "The two striking and important features of the disease are the affection of the throat and the affection of the skin. They may both be well marked, or only one of them may be well marked; and this circumstance has led nosologists to divide one and the same complaint into two different maladies: to which Cullen and others have assigned the respective names of cynanche maligna and scarlatina. When in the early part of the course I was treating of the diseases of the throat, I purposely omitted the cynanche maligna, because that is only a name for a particular form of scarlet fever. If you look at Cullen's definitions of these complaints, you will see how much alike they are. They both specify inflammation of the fauces, a cutaneous rash and fever. The truth is, that these two kinds of diseases both spring from the same contagious poison. "The malignant sore throat" (the same as putrid sore throat) "may be caught from a patient who has mild scarlet fever, and mild scarlet fever may, in like manner, be contracted from one who is laboring under malignant sore throat. The two forms graduate insensibly in different cases toward each other; and it would be impossible, even if it were desirable, to draw any strict line of separation between them." Further, on page 998, he holds: "As the disease proceeds, the throat becomes foul and sloughy, the parotid and sub-maxillary glands swell, sometimes enormously, and fever is lighted up afresh. The acrid matter furnished by the ulcerating and gangrenous throat—" "And this swelling of the parotids and neighboring glands is evidently caused by the absorption of the irritating and poisonous matter from the ulcerated and gangrenous throat."

Now, when we reflect, that at the time the above lucid and graphic description was given, of the real pathological condition of the throat, during the progress of scarlatina maligna, or putrid sore throat, since named diphtheria, you will at once see that the symptoms and diseased condition delineated could be none other than our present diphtheria, which was clearly claimed by the authority quoted as only a modified form of the cardinal disease, scarlatina. It seems that most authorities, even Professor Flint, after laboring to draw a line of distinction between the two forms of disease, still associate them together, and are in doubt as to the relation which they sustain to each other, whether distinct and cardinal, or whether the one may not be the result of the other. On page 817 you will find this language: "This boy had recently had diphtheria, the exudation in the fauces being abundant. There had been no eruption. After his convalescence, a sister was attacked with scarlatina, the rash being abundant. The boy had the characteristic sequels of both diphtheria and scarlatina, and there was ground for the suspicion that he communicated the latter affection to his sister." Not to be captious, probably if there had been another case in the same family—another child sick—the sister would have communicated diphtheria back again to the other member of the family. Interchangably, like the "shuttle cock," the disease could have been thrown "backwards and forwards" to suit the caprice of the observer.

The same idea, the same convenience in combination, the same hybrid notion of the diseases is contained and stated by Thomas in Ziemssen, vol. ii, 217 and 218, where scarlatina and diphtheria are interchangably brought in to suit the particular theory, or pet notions and ideas of the author, to account for the exudative deposit in the fauces and the consequent constitutional symptoms, which so frequently complicate the disease, as the result of the absorption of the poisonous elements, resulting from the destruction and decomposition of tissues, or the action of parasites, or what not.

Now I hold that the old fashioned putrid sore throat, pseudo-membranous pharygitis and diphtheria—rechristened by Dr. Bard, of New York, and more especially by M. Bretonneau, of France, in 1821, are one and the same disease, and that the disease has prevailed, in epidemic form, at different times, and such times described by different writers, using different names, but mainly agreeing with each other in the symptoms and general clinical history of the disease, and that such clinical history given of diphtheria and scarlatina maligna, the parts affected, the general characteristics and course of the diseases would seem to be something more than a mere coincidence, and that probably and primarily they have a common parentage. Read Ortel on diphtheria, and Thomas on scarlatina maligna, and note the similarity in the main features and clinical behavior of the two diseases, laying aside mere theories, long drawn out, detailing the results of many experiments of microscopic observations, the kind of spores seen, how they behave, and what they do. After all, clinically you can see such a strong analogy manifested in each grave form of the diseases, that mere theory as to their separate causation will not satisfy the common practitioner. And it would seem just as reasonable and just as practical to maintain their common causation, as to adopt the idea of the duality of their origin. For it seems to me that the recognition of a radical difference between diseases which possess strong points of resemblance and analogy, is a very delicate matter, and that the arguments in favor of such separation and division of causes, in reference to two grave diseases so similar in their character and analogous in their results, and demanding so nearly the same management and treatment. For certainly rather than amplify our nosology it would seem wisdom to curtail it. But so it is, that every observer who discovers a spore, or a bacillus must name a disease, and hence they multiply.

We now come to the eloquent and sagacious Trousseau, the great clinical teacher, who from his long experience, ample opportunities for clinical observation and research, would seem to be pretty good authority upon the subject under consideration. Vol. 1, page 149, in treating of scarlatina, says: "Has diphtheria supervened to complicate the scarlatina, and divert it from its proper course? The symptoms bear so strong a resemblance to the terrible forms of that frightful disease which carry off both adults and children before the affection has extended to the larynx, the false membrane still remaining localized in the nasal fossæ, ears and throat, the symptoms so much resembling the rapidly fatal forms of diphtheria that one is induced to believe that the case is no longer one of scarlatina, but that the other dreadful scourge has come to destroy the patient." "During my period of service at the children's hospital, I so often found such an extraordinary identity between the sore throat of malignant scarlatina, and the sore throat of malignant diphtheria that I became shaken in my opinion." Such are the conclusions drawn and opinions held by one who had great opportunities to observe the diseases in all their phases, and we see that he even expresses doubts as to the duality in causation of the diseases under consideration. To me it seems obviously absurd, and contumacious to strive to separate, and discuss propositions in reference to diseases where one seems to be, and is admitted to be, the analogue of the other. Certainly there is no reason why, when there are no improved suggestions as to the treatment resulting from the maintenance of the dual cardinal distinction in the causes of such diseases, put forth by different authors.

Again, during the summer and autumn of 1878 we had in our city and surrounding country, a general prevalence of scarlatina simplex, attended by the usual symptoms, followed by the usual sequelæ, acute nephritis, swelling of limbs, ascites, etc. This phase of the disease continued till October, when during our county fair, families from the country, with their children, who otherwise were healthy, except an occasional attack of chill and fever,—mingling with our children, being exposed to the scarlatinous poison,—were suddenly seized with scarlatina maligna, with diphtheritic complications. Notably one family of three children all sick. On the 10th of October a lad, age 9 years, was brought to my office with an ill-conditioned sore on his left wrist, the result of a small cut made by an ordinary table knife, with fever, swelling of the arm, with a red line extending along the vessels to the axilla, where the lymphatic glands were very tender and much swollen. There had been no scarlet fever or other malignant disease in their neighborhood. The case struck me as peculiar and unusual. Here was a bad sore, with a gray slough, high fever, with marked constitutional disturbance in the absence of sore throat or characteristic eruption. I did not then suspect scarlet fever, but from the character of the sore and general disturbance, was suspicious of other poisonous elements in the blood. We have observed, no doubt, the ill effects of the so-called diphtheritic poison on wounds and experienced the terrible conditions arising therefrom. But this case was anomalous to me, for in the observation and treatment of several epidemics of scarlatina, in its various forms, I had never before witnessed such a sloughing, ill-conditioned sore following a simple wound during an attack of scarlet fever. But we know that even the openings of the body, when there is no excoriation or abrasion of the surface, or mechanical destruction of tissue, will frequently be covered by an exudation, and sometimes with the gray slough characteristic of diphtheria following this fact. I find the following query in my notes of the case. May not like results, affecting and attacking like tissues, and analogous facts attended by analogous symptoms, show a close relationship, or even an absolute identity, between the action of what has sometimes been considered two distinct poisons as affecting the general system, and that the same poison, making its impression upon the blood or the nervous system, resulting in disease, exhibiting many phases, modified by occult influences, hygienic conditions, etc., still depend upon the same primary and cardinal causes in their productions. The next day the boy had the characteristic eruption, tonsils swollen, etc., etc. (I will not give in detail the whole reports of the case; only the salient points, etc.) Sore on the wrist no better, a blister appeared just above the bend of the elbow, such as portends an approaching gangrenous condition of the part, and as the disease progresses from day to day, the submaxillary and parotid glands become much swollen, we have ichorous discharge from the nostrils, with the slough separated on the wrist, and a similar slough appears above the elbow. At the wrist the integument and subjacent tissues are sloughed off, flexor tendons are bare and bathed in a thin ichorous fluid; tissues—the soft parts—the general structures in the axilla, are breaking down, with evidence of an accumulated fluid, which is laid open, giving exit to a thin dirty fluid. Glands of the neck much the same. Within a few days healthy pus and granulations are shown at the wrist, but the soft parts above the elbow and in the axilla are still sloughing away, the chain of glands in the axilla are exposed and look not unlike small bleached grains of corn strung together in the open space. On the ninth day open the swelling on the left side of the neck, some laudable pus escapes, and there is evidently an improved condition of the other sores as well as an improved condition of the whole system, and from the fifteenth day there was a gradual advancement towards health, and with careful watching and treatment, such as would be required in such cases. On the 2d of January, 1879, he was comparatively well with very good use of arm, etc. In the same family, on the seventh day, a sister, æt. six, had sore throat, with slight fever; there was a grayish deposit in the pharynx and on tonsils with great general prostration. Third day the deposit became a gray slough, depressed in the centre, with everted edges, had a husky voice, with dyspnœa, showing that the larynx had become invaded; there was a croupy cough, but gradually all of these symptoms subsided and the little girl slowly recovered her health. During all these symptoms she had no rash. The sixth day of her illness her little brother was taken down with high fever; had one severe convulsion; next day the scarlatinous eruption was well out. Tonsils red and swollen, but no exudation deposit. The disease ran its regular course, and he gradually recovered without any of the sequelæ of scarlet fever. Two other children, the one older, the other younger than the rest, escaped the disease (and I thought at the time belladonna and hypo-sulphite of soda, which were used, had a prophylactic effect in their cases).

Now these cases given above (though not in detail, the treatment and management not related, because there were no new remedies used, and their general management was not different from what any intelligent regular physician would have resorted to in such a class of cases, and I might multiply them if time permitted), are strange and unique to me, but would seem to point to the oneness of the poison in each case, and not only in these cases which have come under my own observation, but the authorities cited and the experience of writers would all seem to point with great directness to the same conclusion, unless by some wonderful coincidence, correlation of forces, accident, or intervention of Providence. One of Prof. Ortel's or Hueter's sphærobacteria or micrococcus was opportunely and very conveniently dropped into the knife wound on the lad's wrist, it constituting a proper nidus for the propagation and growth of these wonderful little bodies, and that diphtheria was developed in the wound of the arm simultaneously and conjointly with the eruption from the action of the scarlatinous poison, and that they progressed together, each poison modifying or aggravating the other to suit the hybrid phase of each disease and so continuing to force the truth of the conclusion that two distinct poisons were acting conjointly in producing the symptoms present in each; and hence the boy communicated diphtheria to the little girl, and the little girl having run out of the micrococci, or the soil not being suitable to their growth and development, they died out, but the little girl had enough of the scarlatinous poison left and sufficiently active to communicate mild scarlet fever to her little brother.

As to the causes and treatment of the disease, time admonishes me that I must refer you to our systematic works on the practice of medicine and to the current medical literature of the day. For the main object and purpose of this paper have been to give some reasons, state a few facts, and bring out some authority bearing upon the unity of causation of two very similar diseases, with, of course, some striking phases of difference. And in doing so if the statement of supposed facts and arguments partake of the "*Ad Hoc Propter Hoc*" character, I hope you will carefully consider them and render your verdict accordingly.

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The Power of Alcohol Over the Nature of Man as Displayed by the Modifications of Mind, Morals, and the Physical Constitution Incident to its Use.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

PART III.—FAMILY RELATIONSHIP OF THE NEUROTIC FORMS—ALCOHOLIC TRANCE—AMNESIA—IMPAIRED CONSCIOUSNESS—MENTAL OPERATIONS DEBASED BY THE USE OF ALCOHOL—DISTINCT PLANES OF CONSCIOUSNESS—SOMNAMBULISM—THE MORBID NEUROSES MUTUALLY INTERCHANGEABLE, BOTH IN A SINGLE PERSON AND IN THE PHENOMENA OF HEREDITY—THIS PRINCIPLE UNIVERSAL, WHETHER THE NEUROTIC CONSTITUTION IS ESTABLISHED BY ALCOHOL OR BY OTHER AGENCIES.

HAVING spoken thus in detail in reference to the establishing of a morbid neurotic diathesis: called also nervous instability, predisposition to nervous disease, and otherwise often designated, it is proper, in order to acquire a just and more complete understanding of the whole subject of alcohol and its effects upon human character, to study somewhat patiently the intimate nature of the neurotic constitution when once fully developed, as well as the various relationships observed to exist and become manifest between the several distinct neurotic forms. In this way a more intimate acquaintance may be had with the nature of the true motive power which impels to intoxication, and an explanation and satisfactory comprehension of many of the mental and physical acts of the inebriate can also be thus much better acquired.

It is to be regretted that certain facts pertaining to the pathological effects produced by some toxic agents and certain morbid conditions otherwise produced upon mental states, are regarded by many as phenomena of a curious and exceptional nature, rather than as of practical and realistic value. The mental habits alluded to have an actual existence. The statistics of crime place the perpetration of criminal acts largely to the account of alcohol; or, more properly, to the mental conditions induced by alcohol. What can be more practical than the recognition and study of the obliquity and idiosyncrasy of mental phenomena arising from the alcoholic influence? What can be more proper and useful than a careful study and analysis of the peculiar mental conditions, or deflections in mental courses, consequent upon alcoholic stimuli?

As an illustration, I may refer to a case at law which I had an opportunity of observing. A person was placed on trial for perjury. Amongst other grounds of defense, it was claimed that, although the oath might have been false, the circumstances under which the mind of the prisoner was placed were such as to render him incapable of knowing what really did occur, and that hence he might have been deceived and honestly have sworn to facts in the belief that they were true, while in reality they were not ture. In other words, he had been drinking alcoholic liquors, and it was urged in his behalf that he had become oblivious to the actual occurrences which took place soon thereafter; and that while his convictions were honest, his conscious mind was so impressed by alcohol that he did not remember facts as they truly happened.

Let it be understood that the point under discussion is *not* whether a person, stupid and oblivious from alcoholic poisoning, as, from the pressure of alcoholic sanguineous congestion, is in a state conducive to amnesia. A person so affected can have no true consciousness, either normal or abnormal. He cannot remember; he cannot act at all, unless it is with the greatest manifest difficulty and incoherence. But the question is, can a person be so affected by alcohol that while he pursues a connected and apparently rational course of conduct for a longer or shorter time, extending from a few hours to several days, he will be without consciousness as to what happens to him during such periods of time, utterly losing all memory of the facts and events with which he has been connected in those intervals?

In the trial for perjury above mentioned, I testified that it is possible for certain persons in some minor degree under the influence of alcohol, to live, move, act, talk and do business in a manner which would not readily reveal their actual conditions to others; and yet, after an interval of time of uncertain length they may emerge from a state of abnormal into a state of normal consciousness. They may then discover by documents, or other incontestable evidence, that they have committed a series of acts and lived a period of active existence of which they may retain no recollection whatever. It seems fit, therefore, that some inquiry should be made respecting certain mental conditions arising from the use of alcoholic stimulants. Mental operations, as it will abundantly appear in the course of this investigation, are always debased by any modifications imposed upon them by alcoholic liquors. The state of consciousness, therefore, as it may be influenced by the action of alcohol, will become the subject for consideration for a short time.

It is a fact that certain persons, when under the influence of alcoholic stimulants in a degree much short of stupidity and helplessness, being previously under the duress of a constitutional neurotic predisposition, do enter into a condition of morbid nerve adjustment, during the continuance of which they act with seeming propriety and judgment; and yet upon regaining the conditions of normal life, after the lapse, it may be of even several days of time, they have not any recollection of the events with which they were associated while under the neurotic influence.

In illustration of the truth of this proposition, some cases reported by Dr. T. D. Crothers, of Hartford, Conn., in a paper read by him before the American Association for the Cure of Inebriates, at New York, in May, 1879, will be cited as pertinent. An abstract of the reports, containing the important points only, will be given. These cases will be found to cover a large area of investigation; yet they are by no means singular and unique. Observation is daily showing that such facts are more in number and occupy more diversified fields of human activity than has been generally supposed.

Case 1. E———, after pursuing an intemperate course for a series of years, became affected by alcohol in the following way. He seemed not to know what was going on after he had drank for some time; although he appeared and talked in a rational way, he had afterwards no recollection of what had happened. He would lose all consciousness of his present condition and afterwards, when restored to his natural state, he would find that it was an interval of blank to him. In this interval he would transact business, and act as usual, his friends not noticing anything peculiar. This man died after a few months of some obscure affection of the brain. It is proper to add that he had at one time an attack of delirium tremens, and at another time he had a fit.

Case 2. T. H———, occupied a responsible position during the war. Becoming a drunkard he went to an inebriate asylum and quit drinking for three years, but upon the death of his wife, he began drinking again. Two or three glasses of whisky would make him oblivious to all memory of passing events. He would show excellent judgment in business, and gave but little evidence of being under the influence of liquor. He would insist upon the observance of all the social proprieties, and would observe them himself. On one occasion, when drinking in New York, he remembered nothing beyond a certain point. During this period of amnesia he witnessed an assault which ended in a murder. He went before the coroner and testified clearly as to the facts, giving no evidence of his actual condition. Two days afterwards, his consciousness having gained its normal state, he had no recollection of these events, and could give no evidence to confirm his previous testimony. The lawyers believed he so acted to shield the prisoner, although he could have no motive for so doing. His peculiar condition of oblivion still continues to recur.

Case 3. O——— had an attack of alcoholic convulsions after a long debauch. Remained sober for six months. When he began drinking again he found that he could not recollect anything that occurred when he was drinking, even though his potations were not deep.

Case 4. A——— was injured by a shell during the war, remaining unconscious during many hours in consequence. He drank, but not with regularity. The impulse to drink would come on him at times with overwhelming power. At length he detected himself transacting business that he could not remember anything about afterwards. At one time he displayed great energy and tact in dealing in cotton and rice, though the magnitude of his operations gave some anxiety to his friends. These ventures proved to be profitable, but he retained no remembrance of them when he became entirely sober.

Case 5. A———, injured in the head by a fragment of a shell, became a drunkard; then quit drinking for two years. Afterwards he resumed his habits of intoxication. He was a lawyer. In preparing a case for trial, he drank, but not to excess; but upon going into the court-room, he became oblivious. Thirty hours afterwards, he had no remembrance of what occurred in the trial. During this interval he had conducted the case properly, making his argument before the jury, and writing out a long document in favor of a new trial. The work was all well done. These blanks came and went suddenly. Sometimes a single glass of whisky would suffice to bring on the state of trance, and sometimes more would be required to produce it.

Case 6. A. H———, whose mother was epileptic, drinks at intervals only. He will become oblivious suddenly and at some unexpected moment, and continue in that condition until he has obtained some sleep. He appears abstracted, and can only write short articles for a paper which he edits, in a connected manner. Long articles are likely to betray incoherence. He cannot recall any hint of what has taken place while in the state of abstraction, although he transacts his routine business tolerably well.

It will be perceived that these cases betray in general a neurotic predisposition to active nerve instability, upon the presentation of some existing cause allied therewith. Two were of traumatic origin; there having been wounds of the head received in battle. One had suffered from delirum tremens. Convulsions had unsteadied the brain of another; and still another received his neurotic temperament through heredity from the epilepsy of parentage.

These cases cover the ground occupied by the proposition respecting the possible occurrence of amnesia under even a slight impression from alcohol. Dr. C. H. Hughes, of St. Louis, Dr. Hammond, of New York, and other distinguished authorities have observed and reported similar instances of impaired consciousness arising from the neurotic diathesis, however that diathesis may have originated.

It is therefore assumed that certain persons addicted to drink, are liable to become affected with such an impairment of consciousness as will render them oblivious to events arising while under the influence of liquor; and this may happen also without inordinate indulgence.

The term impairment as applied to consciousness is here chosen, because the connected pursuit of business seen in the condition alluded to, proves that consciousness, that mental attribute upon which depends the knowledge that we think, we exist,—is not lost, but that it is operating upon a plane different from, and inferior to its normal plan of activity. Indeed the whole mind is to some extent operating upon such inferior plane, and is, to the same extent operating automatically. Hence the auto-amnesia, the coming and going of the symptom spoken of, that is, the change in consciousness, is sudden and without premonition. It follows that there is no relationship, either through suggestion or association between the abnormal and the normal consciousness. They are separate and distinct, as much so as though they belonged to entirely different, and separate minds, and the events of one state cannot enter legitimately into the consciousness of the other state.

But it is not sufficient to pause here. That such a condition of modified consciousness is possible, might be discovered by the ignorant and casual observer. It is the business of the physician to determine what is the cause, the reason, the mental and nervous *modus operandi* concerned in the development of the conditions illustrated by the foregoing examples. That such breaks in the integrity of consciousness are not confined to those laboring under the toxic influence of alcohol, is demonstrable in many ways. The facts attending the neurotic phenomenon of somnambulism, are often of a kind analogous to those above described. A somnambulist deeply absorbed in his infirmity, is entirely oblivious respecting his waking and normal state, and does not recognize in his morbid fit the whole and complete surroundings, as they declare themselves to his waking senses. The things occupying his attention when in his morbid neurotic state, are those strictly allied to some leading and isolated feeling or anxiety only; no note being taken of the combined and universal bearings of his environments, such as a mind fully aroused and in normal health would surely consider. In this respect the neurosis of somnambulism may be compared to the driving impulse to periodic drink, which at unexpected times occupies the feelings of the dipsomaniac to the exclusion and extinction, and destruction, of all other rational considerations; as for instance, prudence, economy, health and reputation.

The life of the somnambulist when entirely under the domination of his neurotic temperament, is absolutely cut off from his ordinary life; and of the latter he has no knowledge or remembrance. Conversely, having emerged from his neurotic state of sleep-walking, he knows and remembers nothing of his pathological mental state. Yet, upon a return to the condition of somnambulism, he will evidently take up, and remember, and pursue the threads of thought and action, just where he left them when he last assumed his natural waking life and habit.

This mental phenomenon, in which consciousness plays so conspicuous a part, must be simply an exhibition of a certain neurotic state; a state in which the nervous centers do not occupy a position of natural equilibrium, one with another; whether the fact arises from heredity or from some injury, or from a toxic or morbific agency.

This unstable equipoise is manifested in various ways in mind and body. It is for instance, transmissible in an interchangeable manner, (or form) from ancestry to progeny. It may also be manifested in an interchangeable manner in the person of any one controlled by active neurotic conditions.

So far we have considered amnesia as an outgrowth of the dipsomaniacal diathesis, under the exciting influence of alcohol. Yet this symptom of lost, or impaired consciousness, while not infrequently an attendant upon alcoholic impression, is also common as a symptom of a neurotic interchange with disturbed nervous conditions which are not related to the alcoholic predisposition.

I am acquainted with a clergyman of learning and ability who some years ago had occasional epileptic seizures. During the space of several years he has not had a recurrence of that malady. Recently he preached a written sermon from a text he had been considering for some time. Upon filing away the manuscript after the sermon was over, he was astounded at finding the manuscript of a sermon from the same text, and substantially the same sermon which he had actually delivered two weeks previously. Of this sermon, its composition or delivery, he retains no knowledge or consciousness, or recollection whatever. It seems to be certain that the previous epilepsy, supposed to have been cured, really was not cured, but that the neurotic phenomena characteristic of epilepsy, became interchanged with the less obtrusive neurotic phenomena of amnesia; and this change of form was induced either by virtue of medical appliances or by force of the evolutions in vitality which take place in the changes of time. It is entirely probable that these periods of impaired consciousness do occur at certain times in this gentleman; yet not being accompanied by any documentary evidence to attest their presence, they pass by unnoticed and unknown either by the patient or his friends. The facility with which the mind follows the grooves of habit as a general thing, would disguise and hide such lapses in consciousness from observation. There is undoubtedly more of this kind of automatic thinking and acting in ordinary life than is usually supposed. In the light of these facts it is not difficult to explain the frequent "recoveries" and "relapses" of certain of the insane, so as indeed to make half a dozen persons affected with insanity represent three or four times that many recoveries; the truth being that instead of regaining complete mental health there are simple transmutations for temporary periods only of the insane forms of morbid neuroses into other less prominent neurotic forms. (See Dr. Pliny Earle, in *Alienist and Neurologist*, January, 1880).

Another example involving the subject of impaired consciousness will be submitted which will suffice to illustrate the fact that amnesia is by no means cramped or confined in its pathological relations. A gentleman, who is an eminent lawyer, had a season of defective consciousness apparently in connection with slight symptoms of motor nerve troubles; that is, defective sensibility and incipient paralytic hints on one side of his body. I found him upon examination to be affected with certain malarial symptoms of no very urgent kind. I now remember to have wondered somewhat at the absence of the usual cordiality of manner which is characteristic of the man. He seemed to be reticent, speaking briefly and answering questions in a hesitating way, and with few words. And I may remark here, that when any note has been taken of the manner of patients when in a condition of imperfect consciousness, such as now occupies our attention, the universal testimony has been that there was present an air of abstraction, or pre-occupation of mind.

A few days afterwards, my patient informed me he had no recollection of my visit, and upon inquiry I learned further that he had no remembrance of any of the events with which he was connected on that day. He had, he informed me, written a legal document containing several grounds of defense in a criminal case, and had filed certain papers for a client and paid the fees in the office where they were filed. These facts he discovered, or rather detected, by finding his legal document finished, and properly finished, when he sat down, after his recovery, to prepare it for the court; and by finding upon inquiry at the proper office that the papers intrusted to his care had been placed on file on the day of my visit, the money paid therefor, and the correct change in his pocketbook, out of a bill that had been given him to pay the fees with. This gentleman had previously noticed seasons of instability in the motor functions of one side, consisting of a sense of heaviness in the hand and an inclination frequently to rub it, in order to restore its right feelings and movements. It seems to be certain that two forms of neurotic trouble, one motor and the other mental, but both based upon functional rather than structural foundations, had exhibited a tendency to become transformed one into the other.

It is probable that certain congenital malformations or deformities mark the presence of a morbid neurotic predisposition. At the same time, such defects being permanent and fixed, the active display of the neurotic tendencies are, so to speak, locked up in them; they are then and there arrested, and for the time being held in abeyance. It is clear, if this idea is correct, that there is nothing to prevent the transmission of such a morbid neurotic diathesis in other and various forms to posterity; to the children and grandchildren of the person laboring under such physical disability. I am well acquainted with a gentleman who is afflicted with congenital strabismus. His children are rather above the average in physical appearance and are unblemished by any visible defect of person. They have also been carefully brought up from childhood, and have been trained to industrious habits. One of the sons of this family is a periodical inebriate; another died from the excessive use of alcoholic liquors; another is epileptic; while one of the daughters was greatly hysterical when young, and another daughter had childbed convulsions, but lived through them; and a grand daughter is now hysterical.

All this, it is true, may be explained upon the simple theory of coincidence. But the probability seems to be, that these disasters were the results of the liberation and scattering forth of the neurotic forms held in check and bonds, through the constitutional disfigurement of the father. Such facts show plainly how different family traits of a neurotic nature, may spring from a common predisposition, and assume sometimes one form in actual exhibition and sometimes another form.

In confirmation of the principle that constitutional neurotic predisposition is likely to be displayed in the interchanging forms of actual disease, by means of heredity, as well as by substitution of configuration, one for another, in the persons of individuals affected by an unstable nervous system, many authorities may be invoked. Dr. Fisher, of Harvard remarks: "I have observed frequently that an inherited tendency to melancholia may lead to dipsomania. Of two brothers in the same hospital, one was melancholic, and the other dipsomaniac. The same cause which in one induced melancholia, in the other induced dipsomania." Dr. Maudsley, (*Path. of Mind*, p. 488), says: "The condition (dipsomania), is undoubtedly oftentimes hereditary, or the outcome of a neurotic temperament; some ancestors having suffered either in the same way, or from some other neurotic disorder." Again, as regards neurotic states being transmitted hereditarily in interchangeable forms, the same authority says (p. 108): "Epilepsy in the parent comes out perhaps in some form of insanity; or insanity in the parent, as epilepsy in the child; * * * * in families where there is a strong predisposition to insanity, one member will suffer from one form of nervous disease, and another from another form. One perhaps has epilepsy; another is afflicted with severe neuralgia or hysteria; a third may commit suicide; a fourth become maniacal and melancholic; and it might even happen that a fifth evinced remarkable artistic talent. Neuralgic headache and asthma will often be discovered to own a neurotic inheritance, or found one. The neurotic temperament is fundamental, its outcomes are various." Bearing upon this point, Maudsley says further that: "Certain forms of nervous disease in the parents, such as epilepsy, paralysis and neuralgia, strong hysterics, dipsomania, spasmodic asthma, hypochondriasis, and that outcome of a neurotic and feeble nervous system, suicide, may predispose to mental derangement in the offspring; as conversely, insanity in the parent may predispose to other forms of nervous diseases in the offspring." (*Path. Mind*, p. 107). The same authority declares in another place: "The mingling and transformation of neuroses which are observed sometimes in the individual, are more plainly manifest, when the history of the course of nervous disease is traced through generations; when it is seen how close are the fundamental relations of certain nervous diseases, and how artificial the distinctions between them sometimes appear."

Dr. C. H. Hughes says, in a private communication: "I have often seen one member of a family given to periodic drink, another to attacks of hysteria, or epilepsy, or melancholia, or more active mania."

As an example of the interchangeability of forms of the neurotic conditions, not transmitted from generation to generation, but as exhibited by one suffering from a neurotic diathesis in his own person; that diathesis above described in which the nerve centers are not in equipoise, the following case from Maudsley is in point. "A man seized his child which was in bed with him, and dashed its head against the wall, believing he had seized a wild beast which had risen through the floor to attack the child. His wife's screams woke him, and he was horrified to find that he had fatally injured the child, of which he was very fond. His father and mother both had epilepsy. He was himself addicted to sleep-walking. This case strengthens the opinion of the old writers, who believed there existed a close connection between somnambulism and epilepsy. It is believed that the attack was epileptic in this instance; but that the discharge took a mental direction, rather than a motor one." Instead of an epileptic fit, there was mental confusion and brief insanity. The same authority says (p. 445) that, "the epileptic, surly and irritable, imagines that some one is threatening his life; and then, if the fit takes a mental turn rather than a convulsive one, he may commit an atrocious and desperate homicide during a brief period of insane fury."

It is therefore easy to trace the changes in form of the neurotic seizures as they display their several characteristics, from the first establishment of the neurotic diathesis—as, for instance, through the reception of injuries by the physical body, and through, likewise, the manifold openings which the evolution of human life affords for sinister influences to operate upon the human constitution in passing through the accidents of time. The authorities and illustrations which have been introduced as to the interchangeability of neurotic forms in general, make clear the possibilities of similar changes arising from the toxic influence of alcohol upon neurotic subjects.

If there is so ready an interchange and transmutation of abnormal forms when a neurotic constitution is once fully established, whether that predisposition to nerve instability is due to injuries, habitual drinking, or heredity, what is there to prevent the victim of drink, being himself in a neurotic state, from suddenly entering into some moral or mental condition even less desirable than simple intoxication? What is to prevent him from becoming entirely crazy, and, under such circumstances, committing violent and bloody deeds? Considering the transformations common to the neurotic temperament, it is reasonable to presume that radical changes do sometimes occur in unsound mental forms, and that homicides and other revolting crimes attributed to intemperance, have often been thus inspired.

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Insanity.

BY DR. JAS. G. KIERNAN, CHICAGO, ILL.

LECTURE IV.—CLASSIFICATION OF INSANITY.

EACH of the forms mentioned deserves a particular description before proceeding to consider them in detail.

PRIMARY MONOMANIA

corresponds in part to the systematized insanity and mania raisonnante of the French, the primäre verrucktheit of the Germans, the imbecility of the first grade of Ray and Nichols, the chronic mania of Lockhart Robertson and some other English authors, the first variety of the third type of Celsus, melancholia in the sense of Burton, Esquirol's monomania and lypemania, the types of insanity included in Krafft-Ebing's psychical degenerative states, Morel's hereditary insanities, Luy's third class, the intellectual insanity of Hammond and Maudsley, and certain cases of chronic mania of the asylum reports.

Griesinger* says, concerning "primäre verrucktheit," which is a nearly equivalent German synonym for primary monomania, "that the term monomania, introduced by Esquirol, is especially adapted to designate these states, provided it could always be restricted to a special form of mental disease." The same suggestion was made independently at a later period by Spitzka,** who had accidentally ignored Griesinger's suggestion The lawyers have endeavored to apply the term monomania to a purely ideal hybrid creation of their own—a man sane on all points but one. The monomaniac as met with in practice is not sane on all points but one. The outward expression of his insanity is limited to one or a few points.

The following case illustrating these legal views has been recently reported by a physician: "The delusion of an otherwise sane Chicago man was that his cane was possessed of a spirit. He talked to it, never let it be out of his sight in walking, and kept it by him when asleep." Here the patient manifested evidences of delusions, of hallucinations, of perversion of will power; yet he is regarded as sane otherwise than as to his delusion. The expression of his insanity was limited, and it is from this limited expression of insanity that the term monomania is used.

The lawyer's idea of monomania is like that expressed in the case cited, a little insanity sharply demarcated from sanity; both coexisting: As Dr. Beard* has well said, "a man cannot be a little insane any more than he can be a little dead." The monomaniac is an insane man, his insanity finding expression in a few characteristic symptoms. The essential characteristic of monomania is its deficient associating power, and how far this deficient associating power may lead such a patient no one can tell except by scrutinizing each individual act or thought. This is not the case with the ideal monomaniac of the lawyers who has a single or a few delusions imbedded in an otherwise sane mind. In this type of insanity there can be no change of character, since the patient is insane from his birth. There is, as Griesinger† remarks, rather a "stronger development and increase of peculiarities of character."

These patients are deposed kings, army generals who have lost their positions through intrigue, inventors deprived of liberty, to enrich a patent thief or authors who are imprisoned to satisfy the envy of poetasters. The general mental condition of these patients is moderately fair and in many cases it is sufficient for all the practical purposes of life. These patients by reason of their delusions consider themselves the victims of a plot and to the delusions of exaltation are added delusions of persecution. The reverse may be the case. The patient may form delusions of exaltation in consequence of pre-existing delusions of persecution. Here, as with other systematized delusions, the absurd dicta, promulgated by Dr. Fordyce Barker,§ that insane delusions cannot be the result of reasoning, fall to the ground.

The essential difference between primary and secondary monomania lies in the fact that the latter is secondary to morbid conditions affecting the patient's constitution. In it there is a change of character, in the former there is none.

CHRONIC MANIA WITH CONFUSION OF IDEAS.

In this the derangement of the associating power is carried still further. The following letter, cited from Sankey,* will furnish an apt illustration of prominent symptoms of this condition:

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*Mental Pathology and Therapeutics, p. 228.

**St. Louis Clinical Record, Volume VII.

*Journal of Nervous and Mental Diseases, January, 1882.

†Op. cit , page 81.

§Official report of the Guiteau trial, Dec. 8, 1882.

"—— ASYLUM.

"My Dear Dr. and Mrs.

We have asked him and (to-day written for the Prince of Wales grant of 1862) which we never then refused but as a bird of the hand is worth two in the we on that 5th November day capably carried a law case and the Judges judgment was that the money was to be paid forthwith. Daily bread and common sense depended upon the recovery of the 10£ suit on hand. Ladies could not encounter a London crowd thro wh the greater sum 40£ or £80 per annum was said to be available having received no written order how could you go through a thicket without a ticket as upon all such occasions the police PASS. We knew before we came here the grant was said to be placed at the disposal of an ENGLISH and CONTINENTAL LAWYER in a representative LAW CASE of which PRINCE JOHN of SAXONY under reported slander of my character wished to be unconsciously the respectable head of course we refused his kindly desire to aid and judicially with it was groundless and childish. RETROSPECTIVELY and prospectively looking at our present HISTORY we say let FRIENDship take the place of representation necessitation as money is our friend in the KING'S COIN."

Great as is the confusion here, some relation of ideas is to be detected. Often the incoherence is still greater.

CHRONIC MANIA WITH IMBECILITY

is a combination of primary monomania, with ideas and delusions which bear the same relation to those of the higher types of monomania that ideation of the child does to that of the grown man.

EPILEPTIC ALIENATION.

The reason for the formation of the types into one class of epileptic alienation is self obvious.

RECURRENT INSANITY,

called also periodical insanity or mania, recurs at intervals more or less regular, sometimes bearing relation in the female to menstruation. The form is the same in each individual case, and its essential characteristic is periodicity.

CIRCULAR INSANITY,

called also folie circulaire and cylclothymia, is a typically cyclical affection in which mania and melancholia follow each other in rapid alternation. The melancholic stage is usually in precedence, and the alternation varies considerably in the various types, but is the same for each individual case.

IDIOCY

is generally regarded as a condition in which the patient is congenitally mentally affected from teratological defect.

IMBECILITY

is regarded as one in which pathological defect during uterine life is the cause, strictly speaking, the latter is a higher form of the first.

HEBEPHRENIA,

called also insanity of pubescence or masturbation, is a progressive affection, always beginning at or after puberty. It runs a more or less cyclical course, beginning with depression. There are emotional and affective states of an erotic tinge. When the latter exists religious ideas also appear. There are vague and illy-defined delusions of persecution. Simulation is not an uncommon phenomenon. They are disgustingly and obtrusively egotistic. There is a lack of genuineness in their melancholic and maniacal states.

KATATONIA

corresponds to certain cases of melancholia described by Tuke, Sankey and others. It is a form of insanity originating in early life, which commences by melancholia and passes through maniacal and cataleptoid alternations, attended by the use of theatrical words, manner and gestures during the period of calm, or moderate maniacal excitement. In

ACUTE MANIA

the patient displays violence, is noisy and destructive. There is much motor excitability and delusions, if existent, are optimistic in character.

LYPEMANIA,

or melancholia, or dysthymia (of Kahlbaum) exhibits just the converse phenomena. These patients are possessed of either an extended sadness or of purely subjective delusions of persecution. There are usually four types, with frenzy, agitata, attonita and simple.

PROGRESSIVE PARESIS,

the paralytic dementia, progressive paralysis, general paresis, general paralysis of the insane, general paralysis of various authors is a type of insanity in which marked physical symptoms affecting the pupils, lips, gait, etc., are commingled with, as a rule, expansive unsystematized delusions.

DEMENTIA

is characterized by a marked weakness of all the mental faculties. It originates primarily from a single cause or series of causes, or is secondary to the acute uncured psychosis, or is the terminal condition into which most of the chronic psychoses sink. It is usually found in four forms, primary, senile, secondary and terminal.

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*Lectures on Mental Diseases.

There are two additional forms, transitory insanity and acute delirious insanity, which can be best considered in connection with acute mania and lypemania, which they resemble in some respects.

A Case of Acute Obstruction of the Bowels by the Strangulation of a Loop of Intestine in an Old Hernial Sac at Some Time Withdrawn into the Abdominal Cavity; Lapraotomy After Nineteen Days—Death.

BY H. O. HITCHCOCK, M. D.

MR. C., a man 33 years of age, tall and of good development and health, about the first of October, 1882, began to experience some uneasy feeling in the abdomen, and soon after vomited a little. A homœopath near by was called in, who diagnosticated the case as one of "bilious derangement," attributing the pain in the abdomen to a "strain of the stomach." These symptoms continued until the 6th, when, there being no improvement in the case, Dr. Thompson, of Plainwell, was put in charge of the case.

Looking upon the case as one of malarious trouble, he began the treatment with alteratives, cathartics and quinine. Constipation with occasional vomiting continued, accompanied by a feeling—not so much a pain as a sense of distress in the abdomen, not definitely located, but referred more to the right hypogastric region than to any other portion of the abdomen.

On Sunday, the 8th, there was vomiting of what seemed to be stercoraceous matter. On the evening of that day, Dr. Wm. B. Southard, of Kalamazoo, was called to the case as counsel.

At that time there was a somewhat anxious expression of the countenance, eyes rather sunken, skin cool, tongue moderately dry and coated, pulse 100, abdomen slightly distended, but soft and not tender—even deep pressure over every part of the abdomen elicited almost no sense of pain. Up to that evening there had been no movement of the bowels from any cathartic given; repeated large enemata had at first emptied the lower bowels, but latterly had come away nearly as given, and the same result followed a very large one given by the doctor that evening.

Having learned that the patient had for a long time been the subject of double inguinal hernia, Dr. S. made careful inquiries and examination of both inguinal rings and canals, but could find no tumor, nor pain, nor tenderness on either side, and the patient positively assured him that neither of the hernias had recently troubled him much, that he had not worn a truss for some time, and that neither hernia had been down in two years.

Believing that there was some obstinate obstruction in some portion of the bowel, Dr. S. advised further counsel, and at his request, on the morning of the 9th I met Drs. S. and T. in the case. Having been appraised somewhat of the nature of the case, I went prepared to do any operation which might be indicated as possibly helpful to the patient. At that meeting I received the foregoing history of the case.

The patient had passed a comfortable night, Dr. Southard's prescription of nux vomica and belladonna apparently having had a good effect. The pulse was only 64 and of good volume, skin cool and not dry, and the countenance was not anxious in expression, abdomen not distended nor tympanitic, and careful palpation all over it failed to discover a tumor or to develop soreness in any part of it. The patient had not vomited since the first dose of nux vomica and belladonna, and said he did not feel severe pain but an uneasy feeling in the abdomen, which he could not definitely locate, but indicated that it was mostly felt in the epigastric and right hypogastric regions. The question of hernia was carefully and thoroughly canvassed. The patient positively asserted in reply to the direct question that "neither of his hernias had been down in two years." I passed my finger into each inguinal canal up to the internal ring and met no obstruction whatever: neither did deep pressure in each inguinal region detect any tumor, and it caused but little pain.

The possibility of the intestinal obstruction being caused by a strangulated hernia on either side, seemed, from the history and the repeated examinations, to be out of the question.

The presence of no elongated tumor of a sausage shape being found with the most careful and thorough palpation over the whole abdomen, and the fact that there had been no passage of blood or bloody mucus with severe straining seemed to us to eliminate from the case intussusception or invagination of the bowel.

At that time a very large enema given to the patient in the knee elbow position, brought away some fecal matters among which were what appeared to be grape skins. This fact, together with the apparently fair condition of the patient led us to hope that the intestinal obstruction might be from some crude ingesta, such as the skins of fruits and vegetables. A pulse of 64, with skin cool and soft, and the negations we had elicited by our careful examination of the abdomen, warned us not to submit the patient to the dangers of any abdominal section while there might be a chance of removing the obstruction by milder means. I advised alterative powders of $\frac{1}{2}$ grain calomel, $\frac{1}{4}$ grain ipecac, and $\frac{1}{8}$ grain of opium, to be given once in three hours until eight had been given; these to be followed by a saline cathartic, and a movement of the bowels to be solicited once or twice a day by the use of large enemata, and the symptoms to be carefully watched.

On the 19th, ten days after my first visit, I was again called to meet the same physicians, Dr. Eugene Southard also being present.

I learned that, after the alteratives prescribed at my previous visit had been given, there had been a small stool of thin feculent matter, in which had been found potato and grape skins and some kernels of wheat, and something resembling the tough glutenous substance made by chewing wheat, and, as the day before he was taken sick, he had, while engaged in seeding, frequently chewed up a little wheat, the belief was strengthened that the obstruction might be caused by crude ingesta, and the hope encouraged that it might be removed without resorting to a surgical operation.

But repeated large enemata during those ten days had failed to bring any relief and cathartic medicines such as epsom salts and castor oil, were vomited after a short retention, and their rejection accompanied by the vomiting of matter decidedly fecal.

At this meeting it was quite apparent that the physical condition had been a good deal lowered. The pulse had gradually gone up from 64 to 90 and 100 per minute and had become weaker and less in volume The eyes were sunken, great emaciation had taken place and the countenance bore an expression of deep anxiety and pain. The abdomen was swollen and tympanitic, but even then did not appear to be tender to quite strong palpation, nor did the patient locate the seat of pain and soreness more definitely than at my former visit.

It had now become evident that the patient was on the way to certain death, unless even at this late day he might be relieved by a surgical operation. In the discussion as to where the incision should be made, I called the attention of the physicians present to an apparent fullness along the left inguinal canal, and to a slight dullness on percussion low down in the left hypogastric region. It is true the slightest palpation removed all fullness in the canal, and no positive indications of a tumor were made out in that region of the abdomen, and since the patient had far more frequently indicated the right inguinal region as the possible seat of the trouble, my "feeling in my bones" that the left hernia had something to do with the case, was overruled, and it was decided to make the incision in the median line, so that any part of the abdominal cavity might be readily explored for the seat of the obstruction. Through an opening midway between the umbilicus and pubis, the well lubricated and carbolized hand was introduced and directed toward the left groin. A fold of intestine tightly constricted, as by a cord, was immediately felt, and beyond and yet attached to it was what seemed like a ball, about the size of a small orange, with a broad base, attached to the inguinal portion of the abdominal wall. The opening into which the loop of intestine had passed, seemed like a small hole in the rind of an orange, or the cover of a ball. The finger-nail detected at once the fibrous edge of the constricting membrane, and a small probe carefully passed between it and the intestine revealed the nature of the sac. A few fibres of the constricting edge divided by the hernia knife, and the recent inflammatory adhesions all around the aperture being carefully separated by the finger, the fold of intestine, nearly six inches in length, was carefully withdrawn from the sac and examined. Although the bowel had been so long constricted and so tightly, that, with, perhaps, the exception on the tenth or eleventh day, no fecal matter had passed that point for eighteen or nineteen days, yet it was not gangrenous, but was of a mahogany color. The whole peritoneum was of a deep red color, indicating intense inflammation or that degree of congestion upon the very verge of inflammation, but nowhere were their evidences of the adhesive inflammatory products, except at and around the constriction.

After the loop of intestine had been removed, the finger was passed into the opening and onward into the internal inguinal ring and down along the canal, carrying the sac upon it.

After the operation had demonstrated that there was a strangulated hernia, the wife of the patient said that she remembered that for a little time before he was taken sick, her husband would quite frequently "put his hand down to the place of the hernia, and then pressing on a little, would draw the hand upward." With this fact in mind, only learned after the operation, my theory of the mechanism of the hernia is as follows: The fold of intestine must have passed through the internal inguinal ring into the old sac of the hernia, and by some means or other have been withdrawn into the abdominal cavity, dragging with it the sac and pulling it away from the walls by stretching the loose sub-peritoneal areolar tissue; or, perhaps months or even years previous the hernia when down might have been reduced and the old sac pushed back into the abdominal cavity, separating the peritoneum all around the ring, while the original ring in the peritoneum, the mouth of the sac, remained open, and by some fatuity the fold of small intestine at this time gradually slipped into it and the stricture had by induced congestion became stronger day by day.

The shock of the operation of opening into the peritoneum in such condition of inflammation was very great, from which the patient did not rally, but died in the afternoon of the same day. No autopsy.

This case, unique within my experience and reading, gives rise to important queries and suggestions as to diagnosis and treatment:

a. Intussusception, for the reasons before mentioned, appeared to be eliminated from this case.

b. Malignant disease of some portion of the intestine itself or of some other structure, and obstructing the intestine by pressure, would have had some other history, and complete obstruction from that cause should not be sudden; and careful palpation of the abdomen would most likely have developed some sign of its existence, either as a hard tumor or thickened band, or, at least, some tender spot.

c. Contraction of some portion of the bowel, or stricture by adventitious bands, strong enough to produce sudden and complete obstruction, should at least have a history of previous inflammation.

d. Acute peritonitis, so severe as to produce complete obstruction, would at least give pain on pressure, and cause tympanites or a "board-like" feel of the abdomen, and would be attended by general symptoms of fever.

e. In this case it was known that the man had had double inguinal hernia. Both inguinal regions were repeatedly and carefully examined for tumor, pain, tenderness, and in the absence of all these signs and the repeated assertion by the patient that neither hernia had been down in two years, it seemed impossible that a hernia existed.

I requested Dr. Southard to pass his finger into the rectum to ascertain if a tumor of intussusception could possibly be felt in the rectum.

The facts disclosed by the operation would suggest the possibility of diagnosticating this case by passing the hand into the rectum.

If, instead of positively asserting that neither hernia had been down in two years, the patient had told us of the existence of an uneasy feeling in the region of the old hernia and of his efforts to relieve it by "putting his hand on the place and drawing upwards," as his wife mentioned after the operation, it probably would have led to a much earlier operation, and, even if delayed, we should begin the operation along the inguinal canal, and an opening in that situation sufficiently large to have allowed us to reach and relieve the stricture would have caused far less shock to the patient than the operation which we felt compelled to make, and might perhaps, even at that late day, have saved his life.

Does not this case suggest a possible danger of operating for strangulated hernia without opening the sac, especially if the sac is reducible and is returned into the abdominal cavity, as is sometimes done?

KALAMAZOO, Mich., Dec. 16, 1882.

Cerebral Hyperæmia in Children.

BY WM. T. PLANT, M. D., PROFESSOR OF DISEASES OF CHILDREN IN SYRACUSE UNIVERSITY, SYRACUSE, N. Y.

GENTLEMEN: From anæmia of the brain, of which I gave you some account at our last interview, we naturally pass to the consideration of the opposite condition, that of cerebral hyperæmia or congestion.

This is even more frequent, I believe, than the other affection, and is much oftener met with in early than in later life. The adult brain, closely invested by its fully ossified case, admits of but little increase of its usual blood supply. But in the infant, not only are the sutures ununited, but the great fontanelle may still be open, conditions that favor a very considerable increase over the usual and normal quantity of blood. Other favoring circumstances are the great mental and emotional activity that characterizes this period of life, and extreme rapidity of growth, the brain nearly or quite doubling its weight during the first two years.

Hyperæmia of the head, as elsewhere, may be active or passive. That is, the arteries may carry too much blood to the brain—*active*; or, the veins may fail in their duty of draining the blood from the organ—*passive* hyperæmia. The two sorts of congestion are frequently conjoined in the same case.

Some of the causes of the active form will readily occur to you. Whatever quickens the frequency and increases the strength of the heart-beats, may cause preternatural fulness of the arteries of the head. This would include most acute inflammatory affections, as pneumonia, pleurisy and rheumatic fever. It would also embrace the ordinary febrile diseases of early life, as scarlet fever and measles. Even the approach of a tooth, or a temporary indigestion, may be the occasion of a very considerable cerebral overfullness. Injuries to the head, as from blows and falls, will also occur to you as quite possible causes of this condition. Passing emotions of joy or sorrow, of fear or wonder, may call up a transient cerebral congestion.

If your little patient—as seldom happens, however, from simple congestion--gives opportunity for a post mortem investigation, you will probably find the innumerable vessels of the pia-mater beautifully injected with bright red blood, with marked congestion of the brain itself. The cortical substance is of deeper color than usual, and section of the white substance reveals numerous red points that look as though fine red threads had been drawn through it. If the congestion has been of any considerable standing, you may find that the engorged vessels have relieved themselves in part by letting out serum into the ventricles of and around the brain.

Passive cerebral hyperæmia results from various causes. All mechanical hindrances to the reflux of blood are adequate to this effect. It is frequent at birth after tedious labors, or from delay in the delivery of the body after the head is born. Enlarged glands—cervical, bronchial, tonsillar—may, though I think they seldom do, give rise to it. Fits of hard coughing and crying are common causes. This is one of the dangers of whooping-cough in the young. I think that some weakly, flabby children have passive cerebral congestion from sheer want of vigor in the circulation. Obstructive diseases of the lungs and heart may, you will readily see, have the same effect.

In this form, the bones of the skull may be found outlined in dark blue, and the sinuses distended with blackish blood, which is sometimes very thick.

Symptoms.—Cerebral hyperæmia is itself, as you have seen, but a symptom; an expression of some antecedent morbid state. But it is of such frequency and importance in the young as to merit separate and special consideration.

The active form usually appears somewhat suddenly. Increased heat of head, headache, super-sensitiveness to loud noise and bright light, reddened eyes, contracted pupils, flushed face, throbbing carotids, bulging and pulsation of the anterior fontanelle, if it is still open; a froward temper, disturbed sleep, twitching tendons, sometimes nausea and vomiting, sometimes convulsions and coma—these are the principal symptoms.

The passive form is usually of slower development. There is less activity than in the other. The pulse is not so frequent; the skin may be pale and the face cool. The fontanelle does not pulsate and probably is not so tense as in the other form. If you reflect that in all instances in which the blood supply of the brain is increased or diminished, or perverted in its quality, the organ suffers from innutrition and malnutrition you will not be surprised to find that some symptoms are common to different and even opposite morbid states. Such is the fact. Uneasy slumber; periods of restlessness alternating with stupor; peevishness; jerking of the limbs, and head-ache, belong alike to anæmia and congestion, both active and passive, and to some other affections as well. But the diagnosis is readily enough made if you take all the circumstances into account.

The prognosis will depend, of course, on the cause of the congestion. If that is transient, as anger, joy, fright, fatigue or some trivial thing that quickens the circulation but for a moment no harm can result. But often, as I told you, congestion of the head is an incident in diseases of the most serious character, and then the outlook is less hopeful.

Extreme hyperæmia may lead to the rupture of small vessels, to hemorrhage, compression and paralysis. But as the arteries of early life are elastic and strong, and free from the degenerations of structure that are so common in advanced life, such disasters are very rare.

Treatment.—In acute cases of cerebral hyperæmia the treatment should be prompt. Sometimes the congestion is so great and its increase so rapid that a few hours of delay will render all treatment nugatory. The plain indication is to reduce the amount of blood in the head. How shall we do it? The books, even the latest ones, advise blood-letting by leeches or cups or even venesection. But who actually does this now-a-days? It may be in certain instances the best thing to do; I am not certain that it is not. But little children do not bear losses of blood as well as adults and I think we can manage very well in other ways.

The direct application of cold is known to you all as a ready means of constringing the vessels and driving, so to speak the redundancy of blood from the head. To produce this effect the application should be continuous, not intermittent. Cloths wet with cold water, or, if a powerful influence is wanted, bladders of pounded ice may be applied. When there is a thick growth of hair it may need to be cut before you can employ cold effectively.

Another way of diverting blood from the head is by cathartics. To this end calomel has been more used than any other remedy. It is of small bulk, easy of administration and efficient in action. The saline cathartics are perhaps of equal service.

		GRAMS.	
℞	Magnesiæ Sulph........	12	ʒ ijj
	Syrupi Sennæ........fl	15	℥ ss
	Aquæ anisi......ad. fl	60	ad ℥ ij

Misce. Signa.—Two teaspoons to a child of one or two years.

A diversion from the head may also be accomplished by increasing the temperature of the extremities. Hot foot and hand baths, made hotter with mustard or smart-weed are very efficacious.

The bromides, especially the bromides of potassium and ammonium have been largely used for the last ten or twelve years in cerebral congestion. As you are aware, the claim is made for them that they have the power of diminishing hyperæmia of the nerve centres. They certainly allay the muscular twitchings and restlessness and relieve the head-ache most happily. Wakefulness may be overcome by combining chloral with the bromide.

		GRAMS.	
℞	Potassii bromidi.......	4	ʒ j
	Chlorali...............	2	grs. xxx.
	Syrupi simplicis......fl	45	℥ iss
	Aquæ menth. pip....fl	75	℥ ijss

M. Sig. Teaspoonful to a child a year old.

We have another remedy of great value in aconite. It is thought to have the power of dilating small blood-vessels by paralyzing the vaso-motor nerves. This being so, some of the blood would be enticed from the over-charged head to the other parts of the body. The higher the temperature and the greater the arterial tension the more is aconite indicated. From a fifth to a half drop of the tincture may be given hourly to an infant until free perspiration is induced. It may then be given less frequently.

When the congestion is active and acute the patient should have a spare diet and be kept in a quiet, darkened room.

The treatment of the passive form differs in some respects from that of the active. While cold to the head and warmth to the legs and cathartics still have a certain value they need not be used so diligently. There is often a call for sustaining measures. This is especially true when the congestion comes in the course of long, wearing diseases like pertussis.

And when feeble nutrition has caused a sluggish cerebral circulation, try what virtue there is in a generous but digestible diet buttressed by alcoholic stimulants, with plenty of exercise and fresh air.

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Surgical Treatment of Lung Diseases.

BY PROF. HAL. C. WYMAN, M. D.

GENTLEMEN: My purpose in submitting this paper to you, is to direct your attention to the frightful mortality of pulmonary diseases, a mortality that does not appear to have been diminished, as the progress of the healing art in other directions leads us to expect, and to review the natural history of one of such diseases and nature's methods of curing it. The impetus given to studies of this character by the discovery of Koch, has served to display the chaotic condition of the average medical understanding upon the causes and nature of tubercle. The story of phthisis has been told in a thousand different ways; it is rare that two men tell it alike, and some, I believe, have never told it twice in the same manner.

To the unprejudiced observer, who is not embarassed by what has been written and rewritten since the Grecian maiden, who chalked the shadow of her lover's profile on the wall, originated graphic art, phthisis begins with cough, followed by loss of appetite and strength, emaciation, hectic and death. Such is the picture Camille gives us, and few question its accuracy. We might add to it by introducing a doctor and delineating his vain endeavors to control the cough with narcotics and inhalations, to build up his patient with improved diet, change of climate, cod-liver oil and whisky. But there are exceptions; all do not die.

Within the last ten years doctors have written learnedly of the self-limitation or spontaneous cure of consumption. Recently Dr. Flint, Sr., has published thirty-two cases in which he had no reason to question the correctness of diagnosis, and which recovered without any treatment—that means left to nature's methods.

As our desultory argument now stands, we must admit that a part, not as yet specifically defined, of all the cases attacked with pulmonary consumption will recover, the remainder die.

Let us now ask this question,—for we are going to acknowledge the doctrine of no inflammation no tubercle—why do not all inflammatory diseases of the lungs result in death? The answer is found in the organs which nature has provided for carrying away the products of inflammation. Dr. Formad has greatly enlarged our understanding of these organs—the lymph channels. Sometimes these organs are not equal to the work thrown upon them and then we get tubercle. They exist in every part of the lung and pleura, and differ in size and number in different individuals, being in some instances preter-naturally small. Now suppose we have a case in which by the presence of tubercle we recognize insufficiency of the lymph spaces, what effort does nature make to repair the defect? We will study the changes taking place in lung and surrounding tissues, just as we would study those taking place in a diseased joint, and the organs which give it motion. We observe the manifest desire of nature to give the diseased parts rest, physiological rest which she imposes on all parts concerned in the repair of damage. The pleura becomes early involved in the inflammatory process and by the arrangement of its sensory and motor nerves, as we find them in other serous cavities, endeavors to maintain a state of repose in the parts affected. The irritability of the respiratory tract, larynx, trachea, bronchi and pulmonary alveoli, becomes increased with the object of dislodging by cough all sources of irritation, in obedience to a physiological principle which may be formulated in this way: the reflex excitability of tissues is of two kinds, one of which results in the production of clonic contractions of muscles and the other results in the production of tonic contraction. The first operates for the purpose of preventing damage; the second for the purpose of repairing damage. So, in a case where, owing to inefficiency of lymph channels, we have the products of inflammation, tubercle, pus and hyper-secretion in the pulmonary tissues, we find a struggle going on between the two varieties of reflex excitability. Muscles are struggling to dislodge pus and mucus, while the adhesions which are taking place in the pleura, struggle to maintain tonic contractions of the same muscles. For the present I will let these views serve as a foundation for the study of another feature of phthisis pulmonalis. Loss of strength and rapid emaciation may be due to two conditions, cough and septicæmia. We will analyze them separately.

Cough may derange the digestive process in several ways. By the direct mechanical effect of the severe pounding of the stomach and intestines incident to the violent contraction of the abdominal muscles, by disturbance of nervous influence and by interference with the circulation of the blood.

Septicæmia may assist in the emaciation, by the change of temperature, by the profuse sweats and by the general malnutrition incident to it. We can regard the indications for treatment to consist in three things: 1, maintaining physiological rest; 2, preventing cough from interfering with digestion; 3, guarding against septicæmia.

Now, the point I desire particularly to maintain is that surgical treatment can meet these indications with a reasonable prospect of success. We can assist in the maintenance of physiological rest by immobilizing the lung when one only is diseased, by bandages, adhesive plasters, plaster of paris, carrying the arm on the side affected in a sling. The records of military surgery, the chronicles of rare accidents and remarkable surgical operations, the dogs that have had considerable portions of their lungs excised and various substance thrown into the pleural cavities, teach us that the lungs tolerate trauma in no small degree, and some day a man may be found who is bold enough to attempt immobilization of the lung by exciting by opertive means adhesive inflammation between the visceral and thoracic pleura, or to fasten the ribs with silver wire so as to limit their mobility; to anticipate by surgical means the collapse and immobilization of the affected parts of the lung what nature invariably accomplishes in every case of tubercular consumption that she cures.

The second and third indications for treatment could be largely accomplished by immobilization, if perfectly carried out. The mechanical effects of cough upon the digestive process might be arrested by subcutaneous section of the abdominal muscles. Tenotomy of the external oblique at the point where it inter-digitates with the seratus magnus would not be a more formidable surgical procedure than the subcutaneous section of the latissimus dorsi sometimes resorted to in cases of lateral curvature of the spine.

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Proceedings of Societies.

Proceedings of the Wayne County Medical Society.

A stated meeting of the Wayne County Medical Society convened at its rooms in Detroit, Dec. 14, 1882, Dr. Wm. Brodie, president, in the chair.

Dr. C. A. Devendorf read the following paper on "The Loss of Blood by the Human Female at the Menstrual Epoch an Abnormality":

In our studies into human life and its phenomena, we have tacitly started out with the proposition that man was created by a special act of an all-wise Power, and is consequently perfect in his organization, and perfectly adapted to the conditions under which he is placed. Having thus in a manner fettered ourselves, having chosen a standpoint from which we can look only in one direction, we strive to explain the phenomena of human life and show how some great good is subserved by each and all of them.

The loss of blood by the human female at the menstrual period, viewed from the standpoint just mentioned, is difficult of explanation, and I think it is impossible to show how woman is benefited by this continual and severe drain upon her vitality. But freeing ourselves from all entangling propositions, casting aside all fetters, we would immediately ask, is not this the result of a fault in the organism, or of some peculiar condition under which it is placed? Approaching the question in this way, I think we may hope for an explanation.

In our study of animal life, we find, through it all, if we may so speak, one plan—"one eternal purpose runs"—which is never abandoned, but is being extended and differentiated as we rise in the scale; when we discover an advance, a step upward, we must look for the cause in the environment; when we discover a fault, we must seek for its cause in some new condition in which the animal is placed and to which it has not yet become adapted.

In the study of the lower animals we find that ovulation, or heat, is attended by more or less discharge—non-sanguineous—from the vagina. "It is only in monkeys that we have a counterpart of what occurs in the human female"—(Flint, Jr). But as what we have to say in regard to the erect position of woman applies more or less to the monkey, we will disregard this exception.

The periodial awakening of the reproductive system calls blood to the ovaries, their associate organs, and to the tissues immediately surrounding them. This congestion gives rise to increased action in these organs, which find a healthy expression and relief, in part, by the pouring out of increased secretion; but in the human female the acute congestion is evidently carried beyond this point and becomes so intense that the blood-vessels of the mucous membrane lining the uterus, and perhaps the ovarian tubes, are ruptured and a quantity of blood is poured out. Is not this an act of violence, rather than a physiological act? If so, then here the question arises, what is there in the environments of the human female, or under what new condition has she been placed which could give rise to this variation or account for this fault? In trying to answer this question, our attention would be immediately arrested by the *erect* position assumed by man, and the question would then be, could this upright position account for the fault? I think so. The increased pressure of blood upon the pelvic organs incident to the erect position would carry the periodical congestion of those organs beyond the normal point, and the rupture of vessels and the loss of blood are the results.

No one who has noted the effect of even a sitting position in cases of menorrhagia,—and the admonition daily given in cases of this character "to keep flat upon the back," is a recognition of the fact—can question the effect of the increased pressure of blood due to an upright position.

There are other faults in the organism which strengthen us in our belief that man has not adapted himself to the upright position. Take into consideration the attachment of the uterus, in the erect position of the female. It is faulty in the extreme, and such as no mechanic would endorse. The statement of our gynecologists, "that long continued standing will cause displacement," is alone sufficient to establish the existence of a fault; while the great frequency of lapses, flexions, and versions, with all their attending ills, places the matter beyond controversy.

But place the human female in the position of the quadruped and mark how admirable and perfect is the adjustment of the womb. The organ enjoys the greatest mobility and at the same time has attained security in its position. How suggestive, too, in this position, is the *cul de sac* of Douglas!

It may be asked is the female alone suffering from the faults in the organism? Is she alone paying the penalty of the upward step? By no means.

The frequency of inguinal hernia in the male arrests our attention, and points to the inguinal canal as a weak spot; but place man upon four legs and the danger of hernia is averted and the inguinal canal, attains the perfection of a valvular opening, in which the greater the pressure the more perfect the closure.

Again the presence of valves in the veins of the arms and legs and the absence of them in the large abdominal veins cannot be explained in the erect position and is certainly a departure from all mechanical ideas, while the frequency of hemorrhoidal tumors is an evidence of a fault in construction. In the quadrupedal position, the arrangement is perfect, the valves are placed where required and are absent where not needed. A short time since (July 22, 1882) there was an article published in the New York *Medical Gazette*, by Dr. John I. Liggett, entitled, "Hygiene of the Male Generative System," in which the following questions are presented: "Why is it that man alone becomes frenzied by passion, gratifies his lust by force, and adds the additional crime of murder sometimes to that of outrage? Where is the animal that will destroy the female of his own species, when his amorous advances are repulsed? Why is it that many of our best men destroy themselves by diseases generated through impure connections?" He says that, in comparisons instituted between the "human family endowed with reason, and animals unendowed with reason," such comparisons were found to be unfavorable to the human family. The writer of the article under consideration arrives at the conclusion that the abnormal activity of the testes in man, is due to the fact that they (the testes) are kept at a high temperature by his mode of dress and advises that "the clothing covering the male genitals should be of thin goods or perforated so as to admit air." This throwing the responsibility back upon the tailor seems to me to be a species of "*reductio ad absurdum*."

The fierce and cruel lust which renders man its slave and sinks him lower than the level of the brute, depends upon an abnormal activity of the seminal glands. Does not this excessive activity depend upon the increased blood pressure due to the erect position? Is it not the result of another fault, the outcome of which is humiliation and crime?

The conclusion at which we must arrive is that the human animal has assumed the upright position for, comparatively speaking, only a short time, and the organism is suffering in consequence of this change, to which it has not yet become adjusted. If this is so, would it not be well in our study of disease, to take into consideration as one factor, the want of adjustment on the part of the organism to this new condition—the erect position.

Dr. Wyman: The views expressed in the paper are novel. The blood-vessels should in time adapt themselves to this changed condition and repair the damage. Marsupial animals are said to have sanguineous discharges during the rutting season, and from their habits of suspending themselves, heads downward, seem to afford an instance opposed to the theory advanced in the paper.

Dr. Klein: The nervous system has marked influence over the amours of females, and the menstrual flow is usually more profuse when the mind is thus excited. When the mind is fully occupied with subjects the sexual propensities and menstrual flow are often held in abeyance.

Dr. Lundy: It seems a little remarkable that so much of the life of the human female —before and after the menstrual period— should be free from this flow, if dependent upon the erect position.

Dr. Rouse: Mental influences probably exert a greater influence over the menstrual flow of women than the erect position. The flow is usually materially modified in quantity and early appearance by amorous excitement from reading, conversation or otherwise. This "manner of women" has been the rule during all times covered by authentic record. Long standing is said to induce prolapsus of the womb, owing to its faulty mechanism. Uterine diseases are supposed to be rare among the uncivilized, yet their mode of life and treatment during the puerperal state seem favorable for their development.

Dr. Brodie: The whole mechanism of man is very poorly adapted to the quadrupedal position. The infant is helpless, and its food is placed at some distance from its mother's parturient canal, while the reverse is the case with other mammals. The menstrual rutting flow seems to be most profuse in the higher orders of animals. The bitch has no flow, the mare a slight one until after impregnation, when it becomes more profuse. A similar increase of menstrual flow has been observed in women.

Dr. Devendorf: The doctrine of evolution is now pretty generally held by scientists. The almost universal rule is that mammals, during the rutting season, have no sanguineous discharges, and they assume the quadrupedal position, while women, with their erect position, have hemorrhage. The mechanism of a woman's uterus is perfect while she is in the quadrupedal position, but a botch could scarcely devise anything worse for the bipedal.

Dr. Klein: Evolution has not completed its work. Monkeys have colored discharges at their rutting seasons. Dogs have bloody flow, but do not usually assume the erect position.

Dr. Richards: Dogs, at the rut, have bloody discharges, but these may not be observed on account of their cleanly habits.

Dr. Gray cited a case in which a monkey had sanguineous flow, and was cross and snappish during the rut; also, a woman who was but little on her feet, yet flowed profusely at the menstrual periods, when her nervous excitement was usually very intense.

Dr. Wyman: The blood vessels of the uterus present signs of fatty degeneration at the menstrual period. If the nerves supplying the uterus be severed, ovulation continues as before. The testicles descend to the scrotum through a natural opening—the seat of inguinal hernia.

Dr. Devendorf, as a further illustration, stated that tall men were more subject to varicose veins than short ones. The swelling of the limbs of women during pregnancy was due to their faulty position—the erect.

Dr. Brodie: Inferior animals are liable to swelling of the limbs during gestation.

The society tendered the doctor a vote of thanks for his paper, and requested him to extend it for some future meeting.

Dr. Lundy reported a mild case of ophthalmia in a child. yet rather free hemorrhage occurred whenever it cried. Its mother had rather free leucorrhœal discharges before confinement. He did not regard the child's ailment gonorrhœal on account of its mildness. Hemorrhage from the eyes is not unusual when the inflammation is severe.

Dr. Thuener reported a severe case of conjunctivitis, attended with hemorrhage.

Dr. Brodie reported three cases of paralysis occurring in his practice lately—all occurring since the great electrical disturbance and before the transit of Venus—and asked if the electrical condition of the air could have any influence in such cases.

Detroit Academy of Medicine.

Tuesday Evening, Nov. 14.

Met at the residence of Dr. Connor, President Bradley in the chair.

Dr. Connor offered a resolution that the Academy hold meetings hereafter every Tuesday evening until next April. Carried.

The president appointed as committee on membership, Drs. Andrews, Cleland and Gilbert; as committee on papers and subjects for discussion, Dr. Connor.

Dr. Chittick read an inaugural paper on post mortem examinations, and the proper manner of conducting them.

Dr. Spalding read a report of several interesting cases diagnosticated as cerebral embolism.

Dr. Petershausen asked in regard to one of the patients, how long he had been taking salicylic acid, and in what quantities.

Dr. Spalding: The patient had taken the acid a week, two grain doses every 2 hours.

Dr. Petershausen: Might not the cases of supposed rheumatism have been in reality cases of acute septicæmia?

Dr. Gilbert: How would the diagnosis be made of the latter affection?

Dr. Petershausen: The diagnosis is sometimes difficult to make with certainty, in absence, at least of any cause for the septicæmia.

I may remark that I am in the habit of using salicylic acid in much larger doses than those mentioned—from 40 to 90 grains in the 24 hours.

Dr. Noyes: I have not myself met with cases similiar to those described by Dr. Spalding, but accounts of such cases are not rare in medical literature.

The formation of clots in the blood-vessels is a frequent accident in connection with inflammation of the heart, lungs or blood-vessels, and sudden death from the migration of such clots into the cerebral vessels, even after the patient is convalescent, must not take the physician wholly by surprise. The symptoms produced will of course depend upon the part of the brain where the clot lodges.

Dr. Connor: This accident, cerebral embolism, was among the brilliant discoveries of that distinguished pathologist, Virchow. That such cases occur there is no question. The symptoms alone however do not enable us always to diagnosticate them. The proof that they have taken place consists in finding the seat of the embolus.

Some years ago I had occasion to make a study of the causes of sudden death. One of the most frequent I learned was endo-carditis, the immediate cause of death being embolus from the detachment of the fibrinous vegetations.

An interesting question arises in this connection as to how it is possible that lesions of the uterus should be followed by this accident. It is obviously impossible that clots formed in the uterine sinuses or veins can find their way to the brain, for the pulmonary capillaries are interposed, and yet it is a fact that the accident is not a rare one in puerperal women.

The only explanation that offers itself is one based upon the researches of Schmidt in regard to the coagulation of the blood. If coagulation is produced by a change induced by something in the nature of a ferment, we can understand how septic changes taking place in the blood at one point may produce clots at another distant point.

In pneumonia the tendency is to death from failure in the heart's action. Is it the formation of a heart clot, as is often alleged, or is it rather a failure in the innervation of the heart itself to which the fatal result is to be ascribed? As a student, I remember that I came to believe in the latter hypothesis as the more probable.

Dr. Noyes: This whole subject was discussed very thoroughly ten years ago by Dr. Leidel. I have myself seen embolism of the vessels of the retina, producing blindness, partial or total.

Dr. Maire: In regard to the dose of salicylic acid, it is my belief that two grains repeated every two hours is sufficient to keep the system fully under the influence of the remedy. I have employed it in that manner in my practice, and have every reason to be satisfied with the results. One case in point I may mention. The patient, a child, had suffered two days before I saw it. The ankles were inflamed and swollen, the knees were also becoming involved. I gave salicylic acid in small doses, using in connection with it a little calomel and rhubarb, and in two days the child was able to walk.

Dr. Gilbert: The paper has called to mind two cases I have seen. One was that of a patient who seemed to be convalescent from an attack of pneumonia. He was well enough so that he was up. He went to get a glass of water; on returning, he lay down on the bed, and died almost instantly. The second case was that of a patient in the lying-in ward of Harper Hospital. There had been a mild attack of puerperal fever, from which the patient, however, seemed to have recovered, when all at once she rose up in the bed and vomited, and in a few minutes died. Post mortem examination did not throw any light on the cause of death. There were no symptoms, as in Dr. Spalding's cases, which pointed to a cerebral lesion.

Dr. Petershausen: It seems to me that the symptoms in Dr. Spalding's cases pointed rather to the medulla as the seat of the lesion.

Dr. Cleland: I was much interested in the doctor's paper. One possibility which has not been mentioned suggested itself to me. Might there not have been, in the rheumatic cases, a metastasis of the disease to the brain? Such a metastasis we know is attended with an extremely high temperature and is very rapidly fatal. I have seen several cases of sudden death, especially in child-bed, in which the symptoms were similar to those attributed by Dr. McCormack to the presence of air in the veins. In the early stages of endo-carditis it is often difficult to make out the diagnosis on account of the rapidity of the heart's action. It is only as the action moderates that the physical signs can be plainly distinguished in auscultation.

Dr. Spalding: All authorities are agreed as to the pathology of cases such as I reported. My object in calling your attention to them was mainly a practical one. In my cases, and in such cases generally, no premonitory symptoms were present. Granting that the accident is often of necessity a fatal one, is there no way of anticipating its occurrence? Is there nothing we can do to avert the danger?

Dr. Noyes: I am inclined to think that a metastasis of the disease may have been the real cause of the sudden fatal termination of some of these rheumatic cases. I have myself seen many instances of metastasis in this particular affection. I had once a patient, a young man of a rheumatic constitution, inherited, it seemed, from his father. Although only 30 years old, he had his joints already enlarged, and his form distorted by previous attacks of the disease. I was called to treat him for an attack which had manifested itself in the ankles. The next day, when I saw him, the disease had left the ankles and gone to his chest. He was in great distress, and scarcely able to speak, but managed to tell me that he thought an injection of Perry Davis' Pain Killer would relieve him. It was given him accordingly, and with magical effect. The disease appeared to retire from its new point of attack as suddenly as it had made its invasion.

Dr. Spalding: The cases reported do not seem to me to have the character at all of metastasis. The suddeness of the onset of the symptoms is against that hypothesis. When there is metastasis the symptoms develop in a more gradual manner, while from the nature of the case in cerebral embolism, they make their appearance suddenly and in full severity.

PATHOLOGICAL SPECIMENS.

Dr. Spalding exhibited some of the bones from a leg amputated on account of caries of the os calcis. The patient, some 32 years ago, when a boy 12 years old, was injured by a saw tearing off part of the heel. Sloughing took place, leaving a portion of the os calcis bare, and the bone has remained so exposed ever since. Dr. McGraw, some time ago, undertook a plastic operation, which, however, was unsuccessful, and amputation was at last resorted to as the only remaining alternative.

Adjourned.

November 21, 1882.

Dr. Connor read an interesting and exhaustive paper on syphilitic affections of the eye.

Dr. Wyman: How do you apply the oleate of mercury, and in what strength do you use it?

Dr. Connor: I commonly use a six per cent. solution of the oleate dissolved in an excess of oleic acid, but this strength may be varied according to the requirements of individual cases. I direct that the preparation be applied to the skin over the temple, taking care that none of it be permitted to get into the eye. The advantages of this preparation over mercurial and citrine ointments are uniformity and definiteness of composition, facility of absorption, and—not the least important—cleanliness.

Dr. Maire: I would like to inquire whether you have seen many cases of syphilitic iritis in children who have inherited syphilis?

Dr. Connor: I have seen a few cases, although they are not common. In the cases I have seen, the iritis has been more commonly associated with interstitial keratitis.

Dr. Maire: The reason I asked the question was because, although ocular disease is very frequent in syphilitic children I have never seen among them a case of iritis.

Dr. Cleland: Do you ever get toxic effects from strong solutions of atropia applied to the eye?

Dr. Connor: No, nothing further than dryness of the throat. I am particular, however, to have the canaliculi closed, to prevent the solution from passing into the nares.

Dr. Cleland: How large a quantity of potassium iodide is required to saturate the system?

Dr. Connor: The largest quantity I have ever prescribed was 30 grains every three hours. Some patients are much more susceptible than others to the effect of this remedy. When necessary to produce its effects in maximum degree, I always watch the action of the medicine, and if disagreeable effects, such as gastric irritation, make their appearance, diminish the dose. One plan that has been especially recommended where it was desired to affect the spinal cord, is to begin with four minims of a saturated solution, each minim containing one grain of the salt, and increase the dose by one minim every hour until the desired impression is produced. I find some patients extremely susceptible to the effects of this remedy, although a larger number exhibit this sensitiveness with reference to *iodine* itself. In one patient a solution containing only five grains to the ounce, applied to the throat, produced the most profuse salivation.

Dr. Bradley: I have observed a similar susceptibility to the unpleasant effects of this remedy. In one case five grains of the iodide repeated every three hours produced all the effects of iodism.

Dr. Connor: The possible untoward effects that may be produced by this drug must not be ignored, but where it is a question of saving the eye, or even the life, of the patient, they become of minor consideration. I have adopted the practice whenever I prescribe any powerful medicine of telling the patient in a general way what effects it is expected to produce, and directing that if it produce other and different effects it be discontinued until further advice from me.

PREVAILING DISEASES.

Dr. Yemans: I have seen some true croup; have a case to-night likely to die.

Dr. Wyman: I have had some cases of scarlet fever and diphtheria.

Dr. Andrews: I have not seen much of these diseases. I have had a good many cases of sore throat, but no diphtheria.

Dr. Maire: There has not been much sickness in my neighborhood. I have had a few cases of scarlet fever; no diphtheria In one family I had four cases of scarlet fever, childred from two to seven years of age. The youngest died from acute laryngitis; one had inflammation of the ear as a sequel of the disease; two had inflammation of the nostrils. The family was Irish, and too ignorant to care properly for the sick children.

Dr. Cleland: I have had no scarlatina; a few cases of diphtheria, however; one fatal. One was on Oak street, one on Baker street, two on Congress street east, a greater number reported on Nineteenth street. I have had some cases of continued fever, one lasting five weeks. The temperature for ten days was 102° F. in the morning, rising to 104° or higher in the afternoon. Once it was as high as 105.5°. In my experience the remedy *par excellence* in these cases is *alcohol*. I gave this patient, a girl 12 years old, two tablespoonfuls of whisky every hour. I find that it seems to prevent in a remarkable manner the wasting ot tissues that we usually expect in such cases. I wish to emphasize my conviction that in low forms of fever we do not give enough alcohol.

Dr. Chittick: I have seen some sore throats; no diphtheria; one case of membranous croup; two of typho-malarial fever.

Adjourned.

TUESDAY EVENING, NOV. 28, 1882.

The Academy met at the office of Dr. Andrews. Dr. Bradley in the chair.

MISCELLANEOUS BUSINESS.

Dr. Cleland: I have just had another brush with our health officer. A certificate of death was demanded of me, to be returned immediately, although at considerable personal inconvenience, under penalty of the law. The patient was one I saw last some ten days ago, but it would have made no difference had I been personally cognizant of the death. My reply to the health officer, by telephone, was first, that I have no one now in the office to send with the certificate; then in answer to the peremptory demand that I send it within twenty-four hours, I simply said *I would not do it.* I propose to make this a test case, if the authorities see fit to push it, in case I can feel that I have the moral support of the academy. I therefore propose the following resolution:

Resolved, That the present municipal ordinance requiring the physician under threat of heavy penalties and without proffer of compensation, to turn in reports of all deaths is tyrannical and unjust to the profession.

In discussing this resolution the members of the Academy expressed their opinions at considerable length, the majority agreeing with Dr. Cleland in their feeling that the existing law makes unreasonable demands upon the physician.

Dr. Hawes regarded the law as in its general aim and scope a good one. The community certainly has a right to make peremptory demands upon individuals when it is clearly necessary for the well-being of all. The physician is called upon in courts of justice to give expert testimony without any remuneration aside from the ordinary pittance granted to witnesses. In this case the physician alone is competent to render the necessary service, and it is not one that need put him to any great inconvenience.

Dr. Connor: The physician cannot be compelled to give what is properly called expert testimony without pay. If the custom has grown up it has been the fault of the profession. Doctors in these matters are not usually sufficiently independent. No test case has come up in this state, but wherever a decision has been obtained from the supreme court it has always been in favor of the expert witness, and there is but one way in which such a question can be decided, if it is carried to the supreme court.

Dr. Wight recently read a paper at the meeting of the National Health Association at Indianapolis, in which he said in effect: "If the physician wishes an honorarium for services (such as those we are discussing) he will be more likely to obtain it if he asks for it civilly than if he demands it as his right. If he has really a claim upon the state for services rendered, the courts are open to him; it is his privilege, if he choose to do it, to sue the state." Such language addressed to the profession sounds strangely coming from one who has been raised to his little eminence of authority as a result of measures inaugurated and carried out by the profession; but it is not the first instance of the kind in the world's history.

He is only emulating the example of Dr. Earnest Hart in England and is likely to gain the same kind of unenviable notoriety.

Dr. Cleland's resolution was finally put to vote and carried without a dissenting voice.

Dr. Wyman: The object of the law we have been discussing is confessedly good. It is an experiment in the right direction, but like all first experiments it is imperfect. To secure changes in it by carrying a test case through the courts is a slow and costly process. May we not reach the desired end, of amending, not abrogating, the law, in a more direct way. I move, with this view, that a committee be appointed by the chair to report such modifications as may seem desirable to render the law at once efficient and satisfactory to all parties. Carried.

The chair appointed Drs. Wyman, Cleland, Andrews, Carrier and Connor.

Dr. Spalding related the details of a recent case in which the death of a woman in labor was unquestionably due to ignorance and inefficiency in the midwife. Ought not such a case to afford ground for a criminal prosecution?

Dr. Carrier: Dr. Wight is as anxious as any one to root out this evil. He is ready to have an inquest held, but will Dr. Spalding and Dr. Kirker give evidence in the case?

Dr. Connor: The trouble in such cases is just here, the midwife is allowed to practice her calling. She is not a physician, is not expected to know how to meet all the emergencies that may arise in obstetrical practice. She is therefore not responsible under the law, except so far as the limited knowledge and skill possessed by those of her class render her so. The best physicians lose some cases in child-bed. There are emergencies which obstetric skill and science cannot as yet meet, and the physician would consider it justly a hardship were he held responsible in such cases for the shortcomings of his art. The same principle must apply to the midwife, in law; it is only a question of degree.

Dr. Wyman: The agitation of the matter before the public might after all have a salutary effect.

Dr. Cleland: I fear the moral effect of such agitation would not amount to much—except to discredit the profession. There would be no difficulty in obtaining from members of the profession testimony to prove anything.

Dr. Maire: I think this is a good case of malpratice.

Dr. Bradley: It must be borne in mind, as Dr. Connor has pointed out, that the midwife cannot be required to exercise skill that she does not claim to possess.

Dr. Hawes: Some of the members of the Academy will remember a case that occurred eight years ago, where a midwife in endeavoring to deliver a child dragged at the head until it was actually severed from the body.

Dr. Andrews: One reason why physicians are so powerless to combat this evil is because their opposition to midwives is interpreted by the people—and the average juryman included—as the result simply of professional jealousy.

WRITTEN COMMUNICATIONS.

Dr. Yemans read a paper on delirium tremens, with especial reference to the modes of treatment.

PATHOLOGICAL SPECIMENS.

Dr. Cleland exhibited a post mortem specimen—cancer of stomach.

Dr. Connor: I have lately heard of a new remedy for diphtheria. They have had an epidemic in Mecosta county of diphtheria of a malignant type. The remedy that proved most successful was said to be the application to the throat of the warm carcass of a cat applied as soon as its ninth life was extinct. In one case no less than 16 specimens of the feline tribe were sacrificed before the cure was effected.

Dr. Carrier: The remedy, I believe, is an old one after all.

Dr. Cleland: I have known of the use of chickens in a similar manner, as an application to the abdomen in inflammation of the bowels. The foul was simply split open and applied warm, like a poultice.

Adjourned.

DECEMBER 5, 1882.

WRITTEN COMMUNICATIONS.

Dr. Yemans read the conclusion of his paper on delirium tremens.

Discussion.

Dr. Petershausen: Do you consider delirium tremens a variety of insanity?

Dr. Yemans: Yes, it may be called so.

Dr. P.: Have you observed that in this disease the patients imagine commonly that they see rats, beetles, snakes,—as a rule some living animal?

Dr. Y.: Such hallucinations are characteristic.

Dr. P.: How long usually does this disturbance last, according to your observations?

Dr. Y.: A week is about the average duration.

Dr. P.: Do you find that the liver is especially affected in patients having delirium tremens?

Dr. Y.: I have not observed such a coincidence.

Dr. Hawes: I agree with Dr. Yemans in his advice to discontinue alcoholic stimulants from the outset in the treatment of these cases. If I can have control of my patients and keep from them all alcoholic stimulants, I can cure them more speedily and more certainly than if I allow them to taper off. I give capsicum sometimes, in the form of tincture, but I more commonly use a strong hot ginger tea. I find coca useful for its sustaining effects, particularly as these patients are suffering from want of nourishment, and I also use as a sedative codeia and the bromides of potassium and ammonium. The codeia I generally give by itself, in doses of $\frac{1}{2}$ grain every hour; it should not be prescribed in mixtures containing the bromides, since it is insoluble in the presence of those salts.

One patient of mine who has been under my care a dozen times with delirium tremens, has given me opportunity to verify repeatedly my opinion in regard to the importance of withholding alcohol from such patients. I find that I can bring him around in from three to five days if deprived wholly of alcohol, while if permitted to taper off, it takes seven to ten days. This patient, too, is one who takes alcohol in large quantities. When on a spree, he will take from 40 to 60 drinks of clear brandy a day.

Dr. Noyes: In the early days of my practice I had a large experience with delirium tremens. I saw the disease in all its phases, and tried all methods of treatment. Twenty-five or thirty years ago, capsicum was regarded as the best remedy known. In the army, men with delirium tremens were shut up in the guard-house and fed on red pepper until fit for duty. I found that no one course of treatment was uniformly successful. We must have regard to the condition of the patient. One patient of mine in Cincinnati, a full-blooded Englishman, will serve to illustrate this point. I found the patient in a condition apparently of great mental excitement. He was on his knees, with his hands clasped in an agony of prayer, and nothing said or done seemed to have the slightest effect in quieting him. His face was flushed, his pulse full and bounding. I saw that something must be done at once, and I took out my lancet and without hesitation opened the temporal artery, and allowed the patient to bleed until he became quiet. I must have taken 64 ounces of blood. The patient went to sleep, and the next day reported himself well.

I had occasion to treat the same patient a second time, and again resorted to depletion—this time by calomel and tartar emetic—and he made a good recovery. Subsequently, however, after I left Cincinnati, he had another attack; was treated with stimulants, and died.

Dr. Robertson: I had a patient who developed well marked symptoms of delirium tremens from the the prolonged use medicinally of chloral hydrate and morphine. The patient would complain that she had cold fish in bed with her.

Dr. Wyman: One point in the treatment of delirium tremens has not been alluded to. It is the necessity of nourishing the patients, even if it must be done by forcing them to take food. The stomach often refuses to retain or digest food, but it is nourishment above all things which the patient needs. As soon as digestion can be started, the patient will sleep, and recovery will follow speedily. I have found that the plan of forced diet—introducing food into the stomach by a tube—has succeeded when other plans of treatment have failed.

Dr. Robertson: I am reminded of the case of an American physician who was treated in Paris, while I was there, by Dr. Nightingale, of San Francisco. In this case nothing would stay on the patient's stomach unless given in wine. The treatment consisted in giving the patient every hour an egg beaten up in wine, and speedily (in five days) effected a cure.

Dr. Noyes: My trouble has often been that the patient vomited everything; but when I was in general practice, we did not think of introducing food by a stomach tube, although that is now a common mode of dealing with insane patients.

Adjourned.

JUDSON BRADLEY, *President.*
A. B. LYONS, Sec'y.

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[Reported for the Detroit LANCET.]

Michigan State Board of Health

The regular quarterly meeting of the Michigan State Board of Health was held at its office in Lansing, Mich., on Tuesday, January 9, 1883, the following members being present: Hon. LeRoy Parker, of Flint, president; Henry F. Lyster, M. D., of Detroit; Rev. D. C. Jacokes, of Pontiac; J. H. Kellogg, M. D., of Battle Creek; Arthur Hazlewood, M. D., of Grand Rapids; John Avery, M. D., of Greenville; and Henry B. Baker, M. D., secretary.

The subject of oil inspection was brought up, and it was stated that it was alleged that much oil is being sold without being inspected, partly because of there not being enough inspectors and partly because of the system of payment for inspection, which allows a man to receive large pay for his labor performed during the first of the month, and toward the last of the month, when the fees get smaller, the work is not done. The object to be attained by the inspection should be to ensure that the oil used by the remote farmer in his cottage should be as safe to use as that in the city near the inspector: and it was represented to the board that the cost of inspection could be reduced from $27,000 to $12,000, and yet have all the oil properly inspected, but not without employing more inspectors than are now employed. Dr. Hazlewood and Dr. Baker were appointed a committee to take such action as was considered necessary on the subject of the inspection of oils.

The secretary made his report of work during the last quarter, mentioning the efforts to prevent the introduction of contagious diseases by immigrants; the distribution of blanks and circulars to officers of local boards of health, providing for their annual reports; the general distribution of the Annual Report of the Board for 1881; the issuing of a circular by Drs. Kellogg and Avery, with a view to collecting all facts respecting the cause and spread of diphtheria; the preparations for a sanitary convention at Pontiac commencing January 31; the preparation of articles embracing facts collected respecting contagious diseases in Michigan; also one giving what has been learned by the immigrant-inspection service, also a paper read before a convention at Jackson on "The Relations of the State Board of Health to Corrections and Charities." A resumé of the work of other state boards of health was also presented. It showed that in three counties in California small-pox had been introduced by immigrant cars. The authorities provided an inspection and have for the present stopped the introduction of this loathsome disease. In Michigan the expense of such inspection is much greater on account of the large number of immigrants, and the secretary claimed that the national government should continue to provide means for such inspection, and thus protect the people from Maine to California. Senator Conger and Representative Rich have introduced bills in congress to appropriate $25,000 to enable the National Board of Health to aid state and local boards of health to prevent the introduction of contagious diseases and their spread from one state into another, by means of the immigrant-inspection service. After reading the above mentioned bill the following resolution was passed:

WHEREAS, This board has long been laboring for the restriction and prevention of contagious diseases in Michigan, which depend greatly upon the existence of such diseases in other states and countries; and as this board has been able to trace several outbreaks of diseases in this state during the past year to immigrant travel, etc., therefore

Resolved, That this State Board of Health urgently requests our members of Congress to endeavor to secure the passage of a bill to appropriate $25,000 for the remainder of this fiscal year and thereafter at about the same rate, to enable the National Board of Health to coöperate with state and local boards of health and quarantine in efforts to prevent the introduction of contagious diseases into the United States, and their spread from one state to another.

The invitation to hold a sanitary convention at Reed City sometime in the spring was accepted.

Analyses of apple-butter and of the tinned-copper, such as is used to make wash-boilers, were presented. The apple-butter is often made in such "copper" boilers when they are new. The acid of the fruit attacks the tin which often contains lead in dangerous quantities, and it is said that the tin lining is eaten off in one or two times using for making apple-butter. The analysis of the apple-butter showed distinct traces of lead and tin and a faint trace of copper. That portion of the apple-butter in contact with the cap of the fruit jar in which the apple-butter was sent to the chemist gave very strong reactions for zinc, doubtless derived from the zinc cap which screws down upon the mouths of "Mason" fruit jars. The specimen of tinned sheet copper used in making "copper" boilers and other kitchen utensils was analyzed, and the "tin" was found to contain a large quantity of metallic lead—about two-fifths of the "tin" was lead. From one square foot of such tinned surface there was obtained the equivalent of 150 grains of metallic lead. The ordinary clothes-boiler, such as used in our kitchens, if made of this "tinned-copper," would have 7⅓ ounces of metallic lead on its surface, an amount that must have a serious influence on persons who eat acid fruits and juices boiled in such a vessel. Dr. Hazlewood and Dr. Baker were requested to make an investigation into the subject of metallic poisoning by utensils for cooking and storing food.

The city of Hillsdale, Mich., now required burial permits. While this subject was under discussion, Hon. Geo. Howell, M. D., a member of the committee on public health of the present house of representatives, read a proposed bill to promote the public health. He received the thanks of the board. The subject of requiring burial permits and thus securing mortuary statistics before removal of the body of deceased persons, was referred to the committee on legislation, with the request to prepare a bill and submit it to the legislature. The board adopted a resolution commending the effort to secure mortuary statistics before the burial or removal of the body of a deceased person; and declaring that the method is applicable to townships and villages, as well as to cities.

Many letters from prominent sanitarians in this and other countries were presented, which spoke in a very appreciative manner of the work of this board.

It was moved and carried that local boards of health be recommended to supply physicians and persons acting as such with blank notices of diseases dangerous to the public health printed on postal cards.

The committee on legislation reported on an act requiring the registration of plumbers. Hon. James Heuston, M. D., senator, spoke on the subject of the examination of new dwellings before occupancy, and the following resolution was offered by Dr. Baker and adopted:

Resolved, That the committee on legislation, etc., and the committee on Buildings, public, private, etc., jointly be requested to take into consideration the feasibility of the suggestion made at this meeting by Hon. James Heuston, M. D., for a state law requiring all plans for new dwellings to be submitted to the local board of health for approval.

The committee on disposal of excreta was requested to prepare a pamphlet for general distribution, on the disposal of slop-water, garbage, etc., in villages without a sewerage system, and from detached dwellings.

The American Public Health Association has recommended making it a penal offense to communicate a contagious disease. The committee on legislation was requested to modify the bill so as to name diphtheria, scarlet fever and small-pox, and get the subject before the legislature.

The special committee on sanitary conventions reported that a sanitary convention was to be held at Pontiac on January 31 and February 1, 1883. Among the subjects to be presented are papers on the limitation and prevention of typhoid fever, the relation of the medical profession to public health laws, on toy pistols, the dangers in dirt, and on the contamination of well-water.

The following resolutions (two of them having been passed before) were reaffirmed:

Resolved, That there should be required of all who are to begin the practice of medicine in this state an examination as to their qualifications.

Resolved, That such examinations by the state should be restricted to questions in demonstrable knowledge as distinguished from questions of mere opinion.

Resolved, That, as a public health measure these two resolutions be referred to the president and secretary with a request to do what they can to further the objects of the resolutions.

Auditing of bills and other routine business was performed. The next meeting of the board will be at Pontiac, January 31, and the next regular meeting will be April 10, 1883.

Health in Michigan.

For the week ending Dec. 23, 1882, the reports indicate that cholera morbus, diarrhœa, typhoid fever and diphtheria increased, and that intermittent fever, pneumonia, dysentery and remittent fever decreased in area of prevalence.

At the state capitol, during the week ending December 23, the prevailing winds were southwest; and, compared with the preceding week, the temperature was higher, the absolute and relative humidity slightly greater, and the day and night ozone considerably less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending December 23, or since, at sixteen places, scarlet fever at ten places, and measles at four places. Small-pox was reported at Richmond, Osceola Co., December 27.

For the week ending Dec. 30, 1882, the reports indicate that intermittent fever considerably increased, and that scarlet fever, consumption, membranous croup, measles and remittent fever increased in area of prevalence.

At the state capitol, the prevailing winds, during the week ending December 30, were west; and, compared with the preceding week, the temperature was slightly higher, the absolute and relative humidity slightly greater, and the day and night ozone more.

Compared with the average for the month of December in the preceding five years, neuralgia, tonsilitis and dysentery were more prevalent, and remittent fever, intermittent fever, diphtheria, bronchitis, consumption and pneumonia less prevalent, during the month of December, 1882.

For the month of December, 1882, compared with the averages of corresponding months in the preceding three years, the temperature was slightly lower, the absolute humidity slightly less, the average day and night ozone less, and the relative humidity slightly more.

Including reports by regular observers and by others, diphtheria was reported present, during the week ending December 30, and since, at eighteen places, scarlet fever at twelve places, measles at seven places, and small-pox at two places, as follows: at Richmond, Osceola Co., December 27; at Ionia (one case), Jan. 3, 1883.

Three cases of scarlet fever are reported at Marquette among immigrants just arrived from England. The disease was contracted on the steamer.

For the week ending Jan. 6, 1883, the reports indicate that consumption, erysipelas, measles, pneumonia and bronchitis increased, that diphtheria and neuralgia considerably decreased, and that intermittent fever, whooping cough, inflammation of the brain, remittent fever and influenza decreased in area of prevalence.

At the state capitol, the prevailing winds, during the week ending January 6, were west, and compared with the preceding week, the temperature was considerably lower, the absolute and relative humidity less, and the day and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present, during the week ending January 6, and since, at eighteen places, scarlet fever at fifteen places, and measles at twelve places. Small-pox was reported in Richmond, Osceola Co., January 2, and in Royalton, Berrien Co., January 4.

For the week ending Jan. 13, 1883, the reports indicate that diphtheria, neuralgia, rheumatism and scarlet fever increased, and that consumption considerably decreased in area of prevalence.

At the state capitol, the prevailing winds, during the week ending January 13, were southeast; and, compared with the preceding week, the temperature was slightly lower, the absolute and relative humidity and the day ozone less. There was no difference in the average night ozone.

Including reports by regular observers and by others, diphtheria was reported present, during the week ending January 13, and since, at twenty-one places, scarlet fever at seventeen places, and measles at fourteen places. Small-pox was reported at Detroit, January 13.

HENRY B. BAKER,
Secretary.

LANSING, Jan 18, 1883.

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The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Relations of Physicians to the Compulsory Registration of Vital Statistics.

THERE is no question but that physicians have been and are the active sanitarians. To them is due the establishment of boards of health, registars of vital statistics, etc. But in the practical operation of the laws relating to these subjects there has not been and is not complete accord. This is the more to be deplored as it weakens the power of sanitarians. Our attention has lately been called to this matter by a practical example in Detroit.

Dr. H. A Cleland refused to leave his office and go to the city health office during the midst of his office hours and report a death that had occurred in one of his families, as was demanded by the city health officer under threat of the infliction of the full penalty of the law, viz: $500 fine, etc. Suit was brought before the recorder's court of Detroit by said health officer. After a full hearing the judge quashed the complaint because the ordinance under which the board of health operated was not in accordance with the city charter. It is stated that the case will be carried to the supreme court. But there is little question in the minds of most that this will simply result is a still worse defeat to the board of health.

The fact is that the private rights of citizens forbid that any one citizen should be compelled to do any service to the state, under penalty of fine and imprisonment, without at least a show of compensation. We are not familiar with any instance in which the state does this except in the case of physicians. Even witnesses to criminal acts are given a fee with their summons.

If the laws respecting the registration of vital statsitics now existing in Michigan and other states are to stand the test of the courts they must be placed upon another basis than that they now occupy. Dr. Cleland deserves the thanks of both the Detroit board of health and the medical profession in general for the trouble he has taken to put things upon a legal basis, so that the acts of the board may be legal in the courts and the rights of physicians be vindicated. In so far as we are aware this is the first instance in which the matter has been brought before any American court.

It is our firm belief that physicians cannot be compelled by law to spend their time and skill in the registration of vital statistics, except as any other citizen can be compelled to do so in so far as his own household is concerned. Of course if they are willing to do so there is no objection. But when unwilling they cannot be forced if they choose to contest the matter in the courts. Besides the state of Michigan pays men to collect its vital statistics, and for the service rendered it pays them well. It is pure cheek, to ask under heavy penalty physicians to do this same work for nothing. It would seem as if the state had less esteem for educated, skilled men than the political hanger-on who is paid for collecting vital statistics.

In the January issue of the American Journal of Medical Sciences Dr. J. S. Billings gives an excellent discussion of all sides of the question, especially bringing out the nature of existing laws. He concludes by saying that as "I become more familiar with the results of registration in the United States, the more am I confirmed in the conclusions of my previous report upon this subject, (National Board of Health Bulletin, Feb. 11th, 1882) viz, that the general government should take the matter in hand, and through a permanent census bureau, or the national board of health, secure by paying for them, uniform and complete registration returns from the several states." Such a view of the matter commends itself to the hard common sense of every intelligent student of this subject. The registration if well done by competent persons is of great value to all the people and should be paid for just as the collection of the regular census statistics every ten years.

Among other points to which Dr. Billings calls attention is the fact that under any system now in operation only a portion of the statistics are reliable, the rest are worse than useless as many causes of death are likely to be concealed, as syphilis, alcoholism, erroneous diagnosis, carelessness, etc.

Again the health officer, without any compulsory notification by physicians or others, can obtain very useful information respecting the prevalence of disease among the sick poor, public schools, police, etc. "In short a health officer of tact, who maintains pleasant relations with the medical profession, will be able to obtain a large amount of interesting information with regard to the prevalence of disease without resorting to compulsory legislation, which in many cases at present will be found to be a hindrance rather than a help."

At its late meeting the British Medical Association passed the following: "This meeting earnestly desires compulsory notification of infectious disease; but it wishes to express its opinion that the compulsion to notify should be placed upon the householder as his duty as a citizen, and not upon the doctor."

Dr. H. M. Lyman, of Chicago, in the Medical Journal of Chicago, 1878, p. 252, expresses the feeling of very many that while compulsory registration may answer in countries where for ages people have been compelled to yield to a violation of their personal rights, they are at war with the principles of democratic government and individual freedom. He says, "In this country there are only a few scientific men who can be relied upon for their moral support of a registry law, and it is probable that in Chicago not more than twelve in every thousand would be found to care for the registration of their nativity, even in a family bible. The reason why physicians do not execute the law is because they not only have no personal interest in its execution, but because of an invincible though not always clearly recognized feeling of revolt against the injustice of a law which inflicts a special tax upon the physician in the shape of postage, time and trouble, and affords no compensation for the extra labor and expense. People do not like to make a present to the government in any shape or form. It is as unjust for the state to add fifty cents to the doctor's tax simply because he is a doctor as it would be to add fifty dollars. The state should pay for all such service, and it need not incur any great expense. It might, as in the case of jury duty or military service by conscription, fix its own rate but the obligation should be recognized. The payment would of course require increased taxation, but the increase would be levied upon all alike. The health officers are trying to get service from the doctors without paying for it."

This matter is worthy of the increased attention not only of professed sanitarians, and of legislators, but of the entire medical profession. To obtain the greatest good of the whole people without injustice to any is the only sound principle of action in this as in other public matters.

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Shall the American Medical Association Have a Medical Journal of Its Own in Place of Its Volume of Transactions?

We have at different times called attention to this question. A moment's thought will convince most that this question should be answered in the affirmative. Our present object is to report the progress that has been made toward its solution. It will be remembered that at its last meeting the association placed the matter in the hands of a board of trustees to fully investigate the entire subject and to report at the coming meeting of the association at Cleveland. The members of this board selected by the association were Dr. N. S. Davis of Chicago, Dr. P. O. Hooper of Little Rock, Ark., Dr. J. M. Toner of Washington, D. C., Dr. E. M. Moore of Rochester, N. Y., Dr. A. Garcelon of Maine, Dr. A. S. Packard of Philadelphia, Dr. McMurtry of Louisville, Ky., Dr. Henry S. Campbell of Augusta, Ga., and Dr. Leartus Connor of Detroit. Dr. N. S. Davis, of Chicago, was made president of the board and Dr. Packard, of Philadelphia, secretary.

The board decided upon a weekly journal of thirty-two double column pages as the only sort of a journal that it was expedient to attempt to publish. It also decided that the principal object of this journal should be to represent the thought and work of the American Medical Association and the several allied societies, viz., the several state, county and other medical organizations. To publish the transactions of the larger association and a full account of the proceedings of the other branch organizations, to defend the positions taken by the association and to continue the educational influence of the annual meetings during each week of the year. In all of these respects it would take up a work entirely distinct from that pursued by any existing medical journal.

In a brief circular, the objects decided upon by the board as feasible, were sent to forty thousand of the profession, as far as the names could be reliably obtained. From these responses in the shape of pledges to subscriptions have been received to the number of over two thousand. Now, in many of the states, owing to the fact that no full list of the physicians could be had, these circulars were but sparsely scattered. If any person reading this notice desires the establishment of an association journal let him at once send his name and address to Dr. N. S. Davis, of Chicago, stating that he pledges one subscription as soon as the first number of the journal shall have been issued. To make it perfectly clear to the association that it is wise to begin the publication of this journal next July, it is desirable that all who want to support the enterprise should hand in their pledges at once. If the list of pledged subscribers could be run up to three thousand before the June meeting of the association it would seem that there could be no doubt as to the feasibility of the proposed enterprise.

At a late meeting in Chicago the board decided upon the place of publication, the duties of the editor, the general principles upon which the journal should be conducted by him, the editor, etc., all other details required to lay the matter before the coming meeting of the association. Fuller details will be given later. It is enough to say that in all respects the board has been unanimous in deciding the many questions of policy brought before it. If only sufficient subscribers are obtained to meet the large expenses needful for the conduct of a journal creditable to the association there is no question of its success. The response of physicians has been larger than the writer anticipated. But he is fully convinced that at least as many more are willing to subscribe. Let such do so at once.

That the board of trustees are in earnest is shown by the fact that a quorum could be gathered in mid-winter in Chicago to discuss the questions before it. The results of this meeting will probably be given the profession through a circular letter to the several medical journals, etc. Of course this board cannot finally decide upon anything. It simply gets together the facts and will present them to the association for it to decide what it will do in the premises. But the board is exceedingly desirous to be able to make such a report that the association can safely begin its contemplated publication next July. As we have said, all that is needed for this end is sufficient pledges to be sent to the president of the board. Send yours now and see that your professional acquaintances do the same.

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Tobacco and its Effects.

Such is the title of a very suggestive paper by Dr. G. F. Witter in the last report of the Wisconsin State Board of Health. Some points made by this very temperate paper are worthy of wider appreciation than they are likely to have in this report, so that we give them here. So universal has the use of tobacco become that a non-user of tobacco is looked upon as a curiosity. Health officers use it, and the officers of health boards in some instances are as foul with the fumes of burning tobacco as the lowest grog shop, or den of thieves. It is no unusual thing to see the health officer of a great city gravely and complacently instructing the people respecting the ways of avoiding disease through the air of his office made so dense with his own tobacco smoke that he is seen "as through a mist darkly." Evidently he regards such a practice as not derogatory to the health of his city. The lesson thus taught is that the habit of using tobacco has mastered every class of people and every social condition—even the health officer. The paper before us presents certain facts in the hope that they may aid in a proper estimate of this habit. The increase of consumption of tobacco has been in Great Britain, during the past twenty years, from thirty-two to fifty millions of pounds, and in the United States, during the past ten years, more than eighty per cent. The official returns show that in Germany, in Spain, in Holland, in Great Britain and in the United States *tobacco costs more than bread.*

The Internal Revenue reports state that the expense of the manufactured tobacco in the United States is two hundred and fifty millions of dollars, while the revenue tax amounts to one hundred and fifty millions of dollars. This vast expense does not of itself necessarily condemn the use of tobacco.

In 1862, Napoleon III of France learned that the paralytics and lunatics of France had increased five fold during the previous thirty years, and that the government revenue from tobacco had increased in about the same ratio. Being alarmed, he appointed a commission to investigate the matter. On a careful examination of the young men in the government training schools this commission found that the non-smokers were greatly superior, physically, mentally and morally. So impressed was the Emperor that he prohibited the use of tobacco in all the government training schools.

Superintendent Rogers, of the United States Naval Academy, Annapolis, says: "The experiment of permitting the naval cadets to smoke at the Naval Academy having been fairly tried for nearly three years, has been found injurious to their health, their discipline and their powers of study." Therefore the use of tobacco by the cadets is prohibited. For the same reason the use of tobacco is prohibited at West Point Military Academy.

Further, the records of the United States Navy show that "the most prominent cause of rejection of candidates is irritable heart, caused in most cases primarily by tobacco."

The government of Switzerland has enacted that the "sale of tobacco to minors under fifteen years of age is prohibited, and such persons found smoking are punishable by law."

Lastly, the author introduces the written opinions of a large number of the best known practitioners of Wisconsin. These summarized are as follows:

1. Smoking even in what is considered moderation, is, to say the least, injurious indirectly, most especially to the young, inasmuch as it is notorious that the habits of drinking and smoking are very intimately associated, and that the practice of the latter may easily lead to the former—that the use

of tobacco may become an inducement to the excessive use of intoxicating liquors, with all its accompanying evil results.

2. The beginning of the use of tobacco in early life cannot be too strongly condemned as producing most pernicious effects upon the constitution of the young and as impairing greatly, if not wholly destroying the chances of success as students and scholars.

3. Whatever may be said in favor of the use of tobacco in moderation, its employment in excess, especially if long persisted in, is injurious to any one, physically, mentally and morally."

It will be observed that the evidence against the use of tobacco as an article of luxury or diet by persons in health, is based upon what may be termed clinical evidence. The physicological and pathological ground is not discussed. Practically its use is an enormous expense, and at least to young people it is a positive evil. As to the reasons for its universal use, we cannot speak. They must be all powerful to render the race *slaves* to one drug.

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The Medical Journals of Michigan.

The recent consolidation of the Detroit *Clinic*, at the end of its first volume, with the *Michigan Medical News*, at the end of its fifth volume, is a matter of sufficient importance to call for a few facts in the history of medical journalism in this state. First as to number: Since 1853, there have been started in all, nineteen different journals. In three cases they were formed by the union of previously existing journals. Thus the *Peninsular and Independent Medical Journal* was formed by the consolidation of the *Peninsular Medical Journal* and the *Medical Independent*. The life of this consolidated journal was two years. The Detroit *Medical Journal* was formed by the union of the *Peninsular Medical Journal* and the Detroit *Review of Medicine and Pharmacy*. The life of these two consolidated journals was one year. The last instance of consolidated journals is noted at the head of this note. It is to be hoped that the consolidation will prove of longer duration and more productive of professional good than the two that preceded it. From our knowledge of the events that have led to the union, we are inclined to make a good prognosis. Three of the entire number of these journals have been published at Ann Arbor, and the rest at Detroit. There are now in existence two published at Ann Arbor, and four at Detroit. One of these makes a specialty of illustrations, one is devoted to microscopy, one to therapeutics, one to medical news, and two to the other branches of general medicine and surgery. One who would take and read them all would find little of duplication of either matters of fact or of opinion. Each has sufficient individuality to make it clearly distinct from all or each of the others. Each is content to do its own work, and there is plenty for each to perform. The Detroit LANCET is now in its seventeenth year of continuous publication, if it is permissable to say that it is the continuation of the Detroit *Review of Medicine* and the Detroit *Medical Journal*. It is the largest in size and the most expensive. The medical journal changes have as a rule marked the changes which have taken place in the several medical and pharmaceutical establishments of the state. Hence behind the apparent history of medical journals is the development of the medical and pharmaceutical establishments of the state. The journals here, as elsewhere, have been but the outward expression of the inner thought and life of these two professions. Of this thought and this life, we shall not now speak. Perhaps it is scarcely needful, as the members of both professions have kept close watch of current events.

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Are There New Diseases?

In a lecture published in the *British Medical Journal*, Dec. 16th, 1882, Sir James Paget calls attention to the above inquiry. He assumed that the records of the old English museums would contain a trace of the pathology of such diseases as had a gross and easily recognized pathological anatomy. Thus the museums contain specimens of ulceration of the intestines from typhoid fever patients, although Hunter did not understand their meaning. So also gummata of the muscles of syphilitic patients were seen and preserved by Hunter, although their significance has been understood but recently. These are samples of the specimens of pathological curiosities, detected and mounted before they could be comprehended. But in these same collections are found complete absence of specimens of some recently described diseases. Thus of bone diseases there is a complete absence of specimens of osteitis deformans. No example of this disease is found among the vast series of bones presented the Museum by Hammick, Stanley and others; yet during the past twelve years, Sir James Paget has seen twelve well marked cases and secured specimens. From the same line of proof Sir James thinks that Charcot's disease is new. From clinical records he found that Sir Henry Halford, with a large clientage among wealthy gouty patients had seen but three cases of phlegmasia dolens in the male. At present gouty phlebitis as the disease is now called, is frequently seen by those practicing among this class of people. Such are some of the examples of new diseases and the character of the evidence presented for their being regarded as new.

What is the origin of this change in the varieties and types of disease? Paget suggests that they result from the mingling of different types of diseases through inheritance. Slight differences accumulate till they completely alter the original form of disease as separated by long pedigrees. In a family strongly predisposed to one disorder, those families actually attacked never show precisely similar symptoms, and the variations must tend to increase by intermarriage with the families subject to other forms of that disorder, or to entirely different diseases. Nor is it possible to tell the precise character of the result of blending of affections, whether it will be like one, or the other, or like neither. As the union of oxygen and hydrogen forms a substance with entirely distinct properties from either element so it may be in the joining of substances having different tendencies.

Reference was also had to the therapeutics of this department of study. If a specific drug fails, it is to be inferred that the practitioner's powers of diagnosis have failed rather than the drug A close study would have shown that the patient was suffering from a form of disease deviating from the usual type which could not be relieved or cured by the remedy.

In order to possess the material for detecting new diseases, our museum must be enriched. All sorts of specimens are called for. The field of study here opened up is of boundless extent. All can work in it.

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Half Truths in Medicine.

The entire history of man in every aspect is filled with the origin, development and effects of half truths. In spite of this obvious lesson written upon every page of the past, the present is devoted to the formulating and pursuit of partial truths. About the only truths which command universal belief are "death and taxes." The human mind seeks with irrepressible eagerness to gain a knowledge of final causes. This eagerness induces it with great frequency to regard the most prominent feature of a special group of phenomena as their final cause. There are few that are brave and self-contained enough to confess a blank ignorance where it really exists.

Just now the half truth which exerts the widest influence upon medical thought and practice is the theory of the germ origin of disease. Vast numbers of investigators and physicians think that in germs they have reached the ultimatum of the causation of diseases, etc. Its very simplicity renders the theory the more convincing. Koch's demonstrations of the bacillus tuberculosis have been such that for a time the entire medical world accepted this parasite as the cause of tuberculosis. The truth contained in his researches has been sadly diminished by the demonstrations of Schmidt that this same bacillus is merely a fatty crystal capable of being dissolved by ether. Further, the researches of Formad show that in every tuberculous person or animal there exists a peculiar condition of all the lymph canals and spaces, such as renders all inflammatory action in such persons tuberculous. The products of inflammation cannot escape and be absorbed as in the non-tuberculous or non-scrofulous person. In short, tuberculosis is possible only in those who have inherited or acquired a scrofulous constitution. With such a constitution all inflammatory processes must be tuberculous. Another half truth is the influence of the generative apparatus upon morbid states. Think of the ills that have been and are still ascribed to the uterus, to the penis, etc. To cut the uterus or the penis is a mania with large classes of practitioners.

If a woman is insane a class of practitioners will assert that her insanity is due to some disease of her uterus, while the professed alienist with equal earnestness claims that the uterine disease followed the mental disorder. Certainly both do not hold all the truth. The time may come when some person will be able to grasp the entire truth respecting these and other matters of vital importance in medicine. This being granted, is it not best to hold all truths as partial, and gladly welcome the aid of any worker who can contribute even a mite towards their completion. A very wise and skilled teacher once wrote: "Prove all things and hold fast that which is good." It is better to hold most scientific truths as only partial, a temporary scaffolding to the erection of the great temple of truth in process of erection.

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The Medical Profession in the State of Missouri.

At the late meeting of the Missouri State Medical Society, its president, Dr. King, read a report upon the composition of the medical profession of that state. His report was based upon the replies to a circular letter which he had sent to every county in the state. From these replies he finds that there are practicing medicine in Missouri four thousand eight hundred and thirty-four people. Of these one hundred and fifty-five are women and the rest men. Three thousand four hundred and fifty-three are of the regular school, five hundred and eighty-one of the eclectic, two hundred and seventeen of the homœopathic, of the nondescript five hundred and eighty-three. Of graduates of regular schools there are two thousand five hundred and forty-six. There are two hundred and sixty-nine known or suspected to be abortionists. Thirty-nine of these are women; the rest men. There are one thousand nine hundred and four deemed incompetent to practice medicine by competent judges. Of these, four hundred and fifty-two are regarded as immoral persons, thirty-four being women and the rest men. Further, it is estimated by the same authorities that five thousand five hundred and seventy persons die annually from the ignorance and incompetence of these so-called doctors. These ignorant and incompetent persons are reported to have collected from the people of the state nearly two millions of dollars during the last year. It is also stated by the same authority that more than eight thousand lives are destroyed by the persons styled doctors in Missouri during one year.

Verily this record from Missouri is a dark one, horrid in all its details. But is this state a sinner above all others? We wish we could believe that it is, but there is good reason to suppose that an equally searching examination of the state of things in many other states would exhibit an equally horrible condition of things. Not a week passes but that a doctor in active practice in any state will observe some of the direful results of the practices of those falsely styled doctors. What can be done about it? No doubt a vigorous state law, executed as that in Illinois has been, would check some of the most shameless of these depredations upon the community. But we judge that no plan will remove the real source of the evil, aside from the instruction of the masses of the people to such a degree that they can recognize and shun such doctors, as they can recognize and shun small-pox or cholera, yellow fever and similar deadly or disgusting diseases. The road leading to this goal is a long one, and many will grow disheartened by the way. But it is the only method that will ever purify the medical profession of the parasites which are sucking at its blood.

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Squibb on the Copyright and Trade-Mark on Medicines.

Dr. Squibb has a reputation for uprightness of life such as commends him alike to friend or foe. But he has been much misquoted during the trade-mark discussion of the past two years. In his excellent *Ephemeris* he frankly states his position and views. The *Journal of Materia Medica*, among other things, said: "Squibb copyrights his own name, and thereby guarantees the purity of any of his preparations." This statement, Dr. Squibb replies, is entirely untrue in every sense, for Squibb never did copyright, trade-mark or patent any medicine or preparation of any kind, nor any bottle, label, wrapper or cover of any kind, nor any name or device of any kind. Neither did he claim any proprietorship in any process or any medicine, nor had any secret or proprietary formula or process for anything. On the contrary, he has always been an uncompromising opponent of all proprietorship in medicinal articles, and never has, and probably never will, cease from earnestly opposing all forms of copyright and trade-mark and patent from the mildest form of the manufacture of sugar-coated pills up to the aggravated abominations of the patent medicine market. Physicians may lend themselves to such things if they choose to do so, but as they do, and when they do, they should cease to complain of their patients for doing so, and thus avoiding or ignoring the physician; and should cease to complain that they cannot command the respect and confidence of intelligent laymen.

After this statement, it is out of order to claim that Squibb supports the practices of trade-mark men, etc. The reputation of this man for pharmaceutical knowledge and unswerving integrity is one which any young pharmacist or physician may well hold before himself as an inspiration.

Memoranda.

Quinine is quoted at date of writing at $1.65 per ounce.

Dr. Warren Stone, of New Orleans, died Jan. 3, aged thirty-nine.

Prof. Geo. E. Frothingham M. D., has bought the *Ann Arbor Register.*

Dr. Geo. M. Beard died suddenly Jan. 23, aged about 44. He was widely known as a neurologist.

The well known dermatologist, Prof. J. B. Hillaret, died recently at the age of sixty-seven.

The death of Dr. R. F. E. Corvisart, of Paris, is announced. He was known by his writings upon phthisis and dyspepsia.

The Medical Society of Green County, N. Y., at its regular meeting Dec. 12, refused to approve of the New Code.

On December 16, 1882, died, Dr. John Forsyth Meigs, of Philadelphia. The fatal illness was due to a double pleuro-pneumonia.

Drs. M. A. Pallen and H. G. Piffard have withdrawn from the Post Graduate School of New York. Changes are in order.

"The New York Society of Medical Jurisprudence," is the title of a new society formed in New York.

The Toronto University no longer requires a thesis of candidates for the degree of M. D.

Formad the microscopic pathologist says: "A complete outfit, microscope and acessories, ought not to cost more than fifty dollars."

The title "Fellow of the American Academy of Medicine" is intended to represent in this country the highest combination of scholastic and medical attainments.

The *Louisville Medical News* laments that Louisville contains no medical society. The only existing medical organization is a medical club.

A new St. Mary's Hospital, has been opened in Brooklyn, N. Y. It cost a quarter of a million of dollars and will accommodate four hundred patients.

Every vendor of medicine in Wisconsin is liable to a fine of ten dollars and costs for each time he is convicted refilling a prescription marked "No Duplicate."

The *Louisville Medical News* opens the new year with an increase in the number of its pages. The quality of its editorial work is if possible even better than formerly.

Prof. Obernier, of Bonn, died October 26, 1882, in his forty-fourth year. He is best known in this country by his articles on diseases of the brain, in Ziemssen's Handbook on the Practice of Medicine.

Philadelphia is moving towards the establishment of a Post Graduate Medical School. The success of the New York post graduate schools has been such as to stimulate the old medical centre.

The new weekly issue of the *New York Medical Journal*, is much the same in general make up as the *Medical News.* It is handsome, and well arranged, a credit to both editor and publisher.

On December 5th, 1882, died Von Bischoff in his seventy-fifth year. He held the chair of anatomy and physiology in Munich. He is widely known for his important contributions to the embryology of mammals.

The next session of the International Medical Congress will be held in Copenhagen, from the 10th to the 16th of August, 1884. The announcement is made thus early in order to prevent collusions with other medical congresses.

Dr. Longyear, of Detroit, reports in the *Amer. Jour. Obstet.* a case of excessive salivation due to laceration of the cervix uteri. At least an operation for the relief of the laceration was followed by the entire cure of the patient.

The investigation by the *Medical News* of the character of the quinine pills of the several manufacturers has made quite a stir. The manufacturers claim that they have placed in each pill the requisite amount of quinine.

It is said that the students of McGill Medical College of Montreal have demanded the resignation of the teacher of materia medica. Unless their demands are complied with one hundred and forty-seven students threaten to leave the school.

It is said that the uncertainty as to the parentage of children born of the Sandwich Island natives is such that they never try to trace genealogy by the father but solely by the mother. The promiscuous sexual intercourse of these people is said to be unequaled.

Dr. Squibb says that the opium preparations of the new pharmacopœia are about one-half stronger than those made according to the old standards. This being so it is of importance for the prescriber to know whether he is prescribing the new or the old preparations.

The male and female students at the Kingston Medical College did not get along well together and the faculty has decided no longer to continue this mixed teaching. The Michigan Medical College at Detroit came to the same conclusion after a practical trial of the plan last year.

A verdict of $25,000 has been given a man in New York for injuries received from the running of his wagon into a large hole in the street. It seems that Pott's disease and sclerosis of the spinal cord resulted from his injuries.

The Mississippi Valley Medical Monthly says that since January, 1881, four thousand cases of small-pox have been reported to the health office of Cincinnati and of these twelve hundred and forty-eight have proved fatal. Frightful mortality.

In the case of the Bellevue Medical College of Massachusetts it has been decided that the laws of Massachusetts were not violated Hence any factory can issue medical diplomas to such as choose to buy them, irrespective of the kind or quality of instruction, whether it be much or little.

J. B. Lippincott & Co. announce the early issue of a complete revision of the United States Dispensatory, by Dr. H. C. Wood, Joseph P. Remington and S. P. Satler, gentlemen especially interested in materia medica, pharmacy and chemistry. The work will take its old place as an exponent of the pharmacopœia of the United States.

In the House of Representatives of Congress the appropriation for the Army Medical Museum and Library has been restored to $10,000, as it has been in former years. It is a pity it had not increased it to twice this sum. But in its present shape it is not certain to pass the senate.

The National Association for the Protection of the Insane and the Prevention of Insanity, is called for January 25th, 1883, in Philadelphia. A large number of papers are promised to the meeting. The objects of the meeting are such as appeal to the approbation of the medical profession. All are invited to attend.

Philadelphia has started a post-graduate school. Dr. Jno. B. Roberts is the secretary. The gentlemen connected with it are well known and are certain to make the movement a success. A new and central dispensary will be started. Sixty thousand dollars are subscribed upon which to begin operations.

The professors of surgery and chemistry in the Hospital College of Louisville, Ky., have resigned, and the other chairs are rearranged quite generally. The chair of chemistry has been abolished. Our Louisville college friends have an extraordinary versatility in the changing of the chairs in their several colleges.

A reviewer in the *American Practitioner* says: "That there must be something short in the upper plane of the mental endowment of him who recognizes no difference in the psychological state of those who tried, condemned and executed the Salem witches in 1692, and those who tried, condemned and executed Guiteau in 1882."

The *American Medical Weekly* appears in a new dress, greatly enlarged in size and price, like the other New York weeklies. It is issued from the editor's office in the Astor House. The changes in the New York medical journals are thus very great and important. Abundant capital and energy and brains are sure to place them even higher than in former years.

The *Medical Record* has lengthened its page so as to give much more matter in each issue. It also announces a series of papers upon its treatment of the more common diseases. It says that arrangements have been made by which it will become more completely a newspaper. Of course its editor will retain all the excellent features of the past years.

The fact that ovariotomy is far more successful in England than America is generally conceded. The reason for this is not apparent. The New York *Medical Journal* suggests that the reason is possibly a climatic one. It is well understood that for several weeks of mid-winter, women are especially prone to pelvic inflammatory affections.

An exchange calls attention to a peculiar position of a medical teacher in Michigan. He is said to declare from a moral platform that the treatment of any disease by any alcoholic stimulant is needless and injurious; while his name appears as endorsing the claims of a wine dealer for the excellence of his special brand of wines in the treatment of certain diseases.

The incomes of several of the great London hospitals has so failed that they have been forced to call upon their reserved funds to meet current expenditure. The *British Medical Journal* says that "St. George's Hospital has had to sell out $40,000; King's College Hospital, $48,000; and the Westminster Hospital $20,000." More money needed for current expenses.

The *Missouri Medical Monthly* thinks that the time is near when every town of 10,000 inhabitants will educate its own physicians. He does not tell us why a town of 9,000 will not do the same thing, or even still smaller towns. Missouri has a vast number of colleges, but we had not supposed that it had a medical college for every town of 10,000 people.

The *Journal of Inebriety* says: "Fully 20 per cent. of all deaths can be traced directly or indirectly to the excessive use of alcohol." It also presents evidence showing that "the use of wine or beer in any way will be always followed by the demand for strong drinks, and hence instead of promoting moderation and temperance it actually produces more inebriety and disease "

It appears that the only persons to interest themselves in the prosecution of irregular practitioners in New York are the regular doctors. Hence the people say that these people are trying to get rid of their rivals so that they can have more practice and so make more money, in short that they are entirely selfish in their course. Such methods of regulating medical practice are not liable to elevate the profession in popular esteem.

A Chicago correspondent of the Philadelphia *Medical Times* writes that, "The general standard, as regards educational fitness and preparation is in that city below that aimed at by most of the schools." "Chicago has one physician to every 360 inhabitants." "Within a fortnight two medical men have been knocked down and robbed, in the most respectable portion of the city."

The duty on beer in London, England, fell off during the past year about one and one-half million of dollars. Yet the population has greatly increased during the year. Thus it appears that less beer was consumed than formerly. The reasons for this are numerous. Probably the establishment of numerous coffee taverns was an important element. The manufacture of other temperance drinks has also done its share in the reform. The declaration of temperance principles made by the medical profession during 1871 also exerted its power.

The *Southern Clinic* says: "We know of a large number of Virginia physicians who have left the regular ranks and gone to horse trading, clerking, school teaching, store keeping, peddling, preaching, law, patent medicine manufacture and sale, and every conceivable calling." The reason he says is that only thus could they be honest men, to such an extent had dishonest practices crept out among the lights of the medical profession of that state.

At late meetings the Dutchess and Rensselaer county medical societies voted each to instruct their delegates to vote against the new code of the state of New York. This makes 34 counties which have given the same instruction, while only two have given the reverse instructions. As these 34 counties make a majority of the entire list of counties in New York it is impossible to escape the conclusion that the majority of the constituents of the New York state medical society are opposed to the new code.

Kane, in his tour of North America, gives the following recipe for the preparation of a savory dish of olives, by the Chinook tribe of Indians: "A hole is dug in the ground near the entrance of the family hut. About a bushel of the finest acorns are then put into it, covered with a layer of grass, and then the hole filled with about half a foot of earth. Now the work of cooking begins. From this time henceforth, for the next four or five months, at least, every man, woman and child in the family urinate into the hole, and in due time the acorns become saturated and softened, pungent and odoriferous, and are then partaken of as one of the finest of all earthly delicacies."

The Philadelphia correspondent of the *Medical Herald* says "that as a practitioner among the people, Dr. Roberts Bartholow has not met with success in Philadelphia." After complimenting the several members of the faculty of Jefferson Medical College he says: "As to turning out good doctors, this college needs no recommendation. It goes on the quantity plan rather than the quality. Short term, many lectures, two sessions only, cramming, easy green room, and a flowery commencement, will stick to the Jefferson Medical College as long as it pays."

A genuine leper from the Sandwich Islands has located at his own home in Salem, Mass. He did not want to become entombed in the leper colony of those islands. In a recent paper upon this subject, Dr. J. C White, of Boston, shows that there are in this country six different centers of contagion of this disease, affecting three entirely distinct nationalities, in different climates and under quite diverse modes of living. He thinks that government should prohibit the emigration of these persons, and those already affected should be kept in strict isolation. The sooner and more completely these measures are carried out the better will it be for the non-affected.

The *Druggists' Circular* says that it objects to patent and proprietary medicines because their composition is unknown, and by specious advertisements or other means uninformed persons are induced to buy and use medicines which are as likely to prove injurious as helpful. In other lines of goods the buyers insist on knowing exactly what they are buying, and should not articles dealing with human life be as carefully and intelligently selected? Common humanity demands that some competent person should know and be responsible for the remedy applied. These points are well taken.

It is publicly announced that government has paid without any question the bills of lawyers as follows: Mr. Geo. Bliss for services in the star route trials to Dec. 1, 1882, $40,660.34. The total amount paid to special counsel to the same date was about $70,000. Judge Porter and Mr. Davidge for their services in the Guiteau trial were paid $20,000, almost as much as was to all the doctors and nurses of Garfield, and more than was paid to the three doctors, Bliss, Hamilton and Agnew. The money value set by Congress upon the relative services of lawyers and doctors is here made clearly evident. Is this due to the fact that Congress is composed largely of lawyers and not at all of doctors? Certainly doctors would fix the matter differently.

The *Southern Clinic* says, "The Medical College of Virginia offers to educate forty young men free of charge, and to do the charity practice of Richmond City free of charge, and to attend to the midwifery practice of the city also free of charge. Heaven preserve us from the college." How is a poor doctor in private practice to stand up against such competition. We don't intend to be beaten. We are going to offer a premium for patients. We will pay fifty cents a visit to all who will employ us. But of course the undertakers will have to divide. We must live."

Again the same writer says: "When we consider the fact that in America there is one doctor to every six hundred of the population with a number of medical schools graduating the majority of their classes for nothing, and many more schools admitting pupils and graduating them at mere nominal fees, it is plain that these offers of gratuitous attendance upon the poor, by college professors, dispensaries and other medical establishments are simply to advertise the professors and proprietors of said establishments, and increase their own private practice at the expense of the members of the medical profession."

The Medical Age is the name of the medical journal formed by the junction of the *Detroit Clinic* and the *Michigan Medical News.* It will be edited by Dr. J. J. Mulheron, assisted by the Presidents and Secretaries of the two medical colleges in Detroit. Its size and shape will be like that of the late *Michigan Medical News.* It will be issued twice a month for one dollar per year. Mr. Geo. S. Davis will be the publisher. It should have a large following from the friends of the two Detroit medical colleges and others interested in medical journals. We wish the new enterprise a very happy new year, and a most prosperous future.

The *Medical News* says that for the supply of the medical schools of Philadelphia, seven hundred and ninety-six subjects are annually needed, while the supply from proper source is only four hundred and five. Thus it happens either that the medical students are poorly supplied with anatomical material, or the subjects must be stolen. There is little question but the supply of anatomical material is as bountiful in Philadelphia as in other places having medical schools. What shall be done to remedy the matter? Clearly to cause such laws to be enacted as shall result in furnishing the material so abundantly as to make it unprofitable to steal it. As we have often shown this can readily be done without violating the feelings of any friends of the dead.

The climate of southeastern Alaska, as given by the Bureau of Education, Circular No. 2, 1882, has for forty-five years been in the winter like the winter of Kentucky and West Virginia, and in summer like the summer climate of Minnesota. This mildness of climate is due to the warm Japan current of the Pacific which first strikes the American continent in latitude 50° north. Here the stream divides, one portion going northward and westward along the coast of Alaska, and the other southward along the coast of British America, etc. The northern current gives the great southern coast of Alaska a winter climate as mild as that of one-third of the United States. Mr. William H. Dall, of the Smithsonian, says that from his own personal inspection he is convinced that Alaska is a better country than much of Great Britain, Norway, or even a portion of Prussia.

A writer in the New York *Medical Journal* says that the only two prominent objectors to the New York code are a violator of the old code and a manufacturing pharmacist. It is to be supposed that the thirty-three county medical societies of the state who have officially denounced the new code are mere nobodies. He is especially struck with the temerity of a Philadelphia journal which has presumed to meddle with a matter that only concerns New York, and the meddling of the said pharmacist referred to (Dr. Squibb). Concerning this, it is clear that it was all a mistake that the professed advocates of the new code tried to force themselves upon the official organization of the entire American medical profession. It is too bad that the prominent medical journals of the land have more or less frequently discussed this matter, and also state and county medical societies in large numbers. Certainly they all have thought that the matter did have a very direct relation to the entire medical profession. Indeed we were told by the advocates of the secessionists that they intended to revolutionize the entire country to their mode of action.

It is claimed that the cemetery near Richmond, Va., has been systematically robbed, the bodies being used in the Medical College of Virginia. There has been a great stir in Philadelphia from the fact that some students and colored persons were caught in the act of spoiling graves near that city. The demonstrator of Jefferson Medical College has been so involved as to be indicted. There would be none of this horrible work done if only the authorities would turn over to the medical colleges such bodies dying in poor-houses or jails, etc., as their friends would not bury. The public are constantly at great expense to bury paupers and criminals. All of these should be placed at the disposal of the medical profession. Thus cadavers would become cheap, and there would be no temptation to steal them.

The Toledo *Medical Journal* and the Toledo Medical College are announced as having organized and started at their proposed work. The journal contains twelve double column pages and is issued monthly for $1.00 a year. It is edited by Drs. Priest and Gardiner. The college announces as professor of surgery Dr. J. H. Pooley, of Columbus, Ohio, and as professor of ophthalmology Dr. J. H. Buckner, of Cincinnati, Ohio. Of course it is claimed that both the college and journal are to supply a "long felt want." The tickets for the lectures are $40. The requirements of the college are equal to the lowest tolerated by professional opinion. We cordially welcome the journal to our exchange list and hope that it with its ally may do much to make the medical profession wiser, stronger and better in all respects. That there is any unoccupied field for either cannot be truthfully said. But the same is true of most new medical graduates. It is for them to make a field. Had they established a college with better endowment, with better facilities for instruction, with higher aims than any existing in Ohio, it would have found a field ready for it to labor in. As it is its existence must be at the expense of plenty of other starving schools in the same field. If it can beat the Columbus Medical College in its field it must be wide awake. It is useless to look to a starving man for a high respect for the rights of others. So it is useless for the medical profession to look to a starving medical college for any elevation of the medical profession. The most unpromising feature of the enterprises we have noticed is that they present no evidence that they are so endowed as to be able to advance professional interests.

Editor's Book Table.

Harley on the Diseases of the Liver.*

This work includes all the material of the author's monograph, published in 1863 and a vast amount more that has since been accumulated by his study and his experience during the past 20 years. Hence it is really a new work in all essential respects. To apply modern physiological chemistry to the diagnosis and treatment of the liver, with and without jaundice, is the task he set before himself. His long study of practical physiology as well as his extensive medical practice has especially fitted him for this work. Then his especial study of the urine in all its derangements still further prepared him to undertake this task. The work is evidently for the practitioner and advanced medical student. In most respects the author has limited himself to the expression of his own views. He apologizes for the apparent dogmatism of some portions of the work by saying that only thus can old and deep rooted prejudices be removed. He admits that the future may require that his work shall be overturned. But to this he readily assents, in the hope that thus progress may be made by the profession in the study of this intricate branch of medicine.

Dr. Harley has an abiding faith in the value of physiology as a preparation for the study of pathology, clinical medicine and treatment of disease. He says, "If then we may draw a picture of the future from the progress of the past, we need have no hesitation in saying that chemistry rightly applied and physiology justly interpreted will, ere many generations pass away, reveal the deepest secrets of diseased action; and although scientific medicine will still be, and forever remain, unable to banish death, it will nevertheless enable the properly trained scientific practitioner to follow with unerring certainty the various morbid changes occurring in the human frame, as well as probably at the same time permit him to mould their course to the advantage of suffering humanity."

We have read the entire book with interest and profit. There is much in it that we do not care to accept, but the main principles inculcated are essentially sound and eminently practical. Besides it is presented in such an attractive style as to interest even an indifferent student. The large personal element mingled with all truths is quite fascinating. We are well convinced that no practitioner can read this work without both direct and indirect profit to himself and to his patients.

The quotation of a few points selected almost at random must suffice to illustrate our general remarks and show more fully the general character of the work.

The weight of the liver varies not only with the growth of the body like other organs, but its relative weight varies at different ages. Thus at birth the weight of the liver is one-eighteenth the weight of the entire body; at full growth it is one-thirty-fifth, while in old age it is one-fiftieth. Thus the infant liver is proportionately nearly three times as large as that of the aged man. Evidently the function of the liver is relatively more important in the earlier years of life. Harley thinks that the reason for this lies in the fact that the rapid growth of the protoplasm of the child requires more sugar, and so a larger sugar-making organ. The hepatic dullness anteriorly he gives as four inches in a person five feet and seven inches in height, which means the dull area in the direct perpendicular right nipple line while the patient was lying in the dorsal recumbent position. Under the same circumstances in a person five feet high three inches constitute the absolute dullness; while in a person six feet high four and one-half inches are considered to be the full limit of the dull area. Very complete directions are given for determining all the variations to be expected in any change in the size of the liver or its position.

He believes that the liver has four functions, viz: to make sugar, to modify fat, to produce heat and to form bile. Two kinds of sugar are made by the liver, a non-crystalizable or grape sugar, and a crystalizable or milk sugar. The entire account given of the physiological chemistry is in the main generally accepted and is well put. Passing to the action of mercury he believes that while it does not increase the production of bile by the liver cells, it does cause a contraction of the gall bladder and so the passage into the intestines of the bile stored up in the gall bladder. Of course it also cleans out the entire intestinal tract. Under certain diseased conditions he holds that mercury so relieves the over-charged blood vessels as to promote the flow and also the secretion of bile.

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*The Diseases of the Liver, with and without Jaundice, with the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By George Harley, M. D., F. R. S. Illustrated by colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co. 1883. Pp. 751 Price $5.00. For sale by John Mac Farlane, Detroit.

His three favorite preparations for modifying the action of the liver are calomel, blue pill and grey powder, as they furnish three convenient grades of strength. He gives these at bedtime but does not give a laxative in the morning. What he desires is simply one free passage from the bowels within the next twelve hours. In this manner he obtains the action of the remedy upon the function of the liver simply. For the same reason he gives the remedy upon an empty stomach.

Of all the causes of biliousness he thinks that none operate so effectively and promptly as narcotics.

He regards the causation of the attacks of biliousness so frequent at the seaside, as referable to the increased consumption of food beyond the usual habits of the person at home.

In all hepatic disorders he regards as pernicious all sugar-forming and fatty foods. He thinks that starchy puddings and fat bacon cause more gall stones than all the other kinds of food put together. The principles upon which he regulates the diet of hepatic cases are based upon these facts.

As illustrating the fact that national drinks are largely a matter of habit, he calls attention to the popularity of the champagnes in England that are simply spoiled wine, its dryness being due to the amount of acid present. He says all refinements of human taste are simply artificial acquirements which have become popular and at length got stereotyped by fashion. In proof of this he cites the "Kava" of the Fiji islanders. Sir Henry Denham describes its manufacture thus: "The women sit down in a circle and chew the root of the piper methisticum, spitting the juice, mixed of course with their own buccal secretions, into a bowl placed in the center of the group. Water is then added in proper proportion and the mixture allowed to stand and ferment for two hours, at the end of which time it is ready for drinking." While to us this is a loathsome beverage, to the Fijians it is a dainty dish. Of the same nature is the following: "The British matron prides herself upon the nice flavor of her putrid game; the Spanish lady on that of her rancid salad oil, and the German hausfrau glories in her stinking cheese."

Of the forms of biliousness, the first or acute form—that from hyper-secretion of bile—is the most common in childhood. The second or sub-acute form, arising from diminished biliary secretion, is most frequently met with in youth. The third or chronic form arising as it does from sluggish biliary secretion, is in general only met with in adults, more especially those who have been for some years resident in hot climates. As a rule the severity as well as the frequency of all kinds of bilious attacks in predisposed individuals gradually diminishes after puberty; the first two forms are rarely if ever met with in persons over forty years of age; the acute form is decidedly the most common among children and young women, especially among brunettes at the period of puberty.

Of especial importance are the chapters on treatment and hints relating to differential diagnosis.

The publishers have issued this edition simultaneously with the appearance of the English edition.

It must find its way into the library of every thinking, wide awake practitioner who believes that "true science is the key to wise practice."

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Sixth Annual Report of the Wisconsin State Board of Health.*

This report covers two hundred and twenty-nine pages. Besides the general reports of the board and the secretary, it contains five excellent papers, viz.: "Hints on Hygienic Education," by Mrs. W. P. Lynde; "Hygienic Clubs for Women," by Dr. Helen M. Bingham; "Color Blindness," by Dr. E. W. Bartlett; "The Growth of Children," by Dr. G. F. Witter, and "Tobacco and its Effects," by Dr. G. F. Witter.

The board state that during the past year more than two thousand deaths have occurred in Wisconsin from diphtheria. Yet the people are entirely indifferent to these dreadful ravages. The causes of this indifference are that diphtheria is always present and the people do not recognize the fact that by isolating each person attacked by it promptly and strictly, as is done in case of small-pox, diphtheria could be limited quite as much as the more dreaded disease.

Mrs. Lynde urges the importance of instructing the young in the principles of hygiene. For they have to care for themselves and such knowledge is essential to their own well being. Farther, each has or will have some one or more persons depending more or less upon his or her knowledge of hygiene, and with hygienic knowledge he will be able to guard them against many dangers. Besides, hygienic knowledge is more readily gained during the earliest years. As illustrating this topic she tells the following story: "One of the most practical and wise physicians I have ever known was accustomed to enter in his day book charges to A. B. for 'advice and medicine,' or to C. D., 'visit, advice and medicine.' Long after he left the scene of his earlier practice, a sensible intelligent farmer whose family physician he had been told that in making a final settlement of accounts with the doctor he saw these entries and said: 'So, doctor, you charge for advice, do you? A man can generally get all the advice he wants for nothing.' The doctor answered: 'I think, John, you will find that my advice has been worth paying for.' And said the farmer: 'So I have found it, to my great sorrow; it was worth all the medicine he ever gave, and for the want of it I have lost all my children but this one,' laying his hand lovingly on the head of a fair young girl at his side; 'I can see now 'twas the wise advice that saved them to me while I had him to give it; 'twasn't the medicine, for they had enough of that.' "

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*SIXTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF WISCONSN. 1881. Madison. 1882.

The paper upon "The Growth of Children," by Dr. Geo. W. Peckham, is an elaborate and valuable contribution to our knowledge of this subject. The public schools of the state were used to obtain the material employed. Tables and diagrams are freely employed in the elaboration of the individual observations. The writer's summary of results is thus:

1. The rate of growth in the two sexes is such that the boys are taller until the twelfth year, and heavier until the thirteenth; between the thirteenth and fifteenth year the girls are both taller and heavier; after the age of fifteen the boys excell the girls both in weight and stature. Girls nearly cease to grow when about seventeen years of age.

2. Children of pure American descent are taller than children of foreign born parents; but when compared in weight with children of German parents, are on the whole lighter. The greater height is largely due to difference in stock or race.

3. For the same reason children of American parentage are taller than those of either German or Irish; and the Irish are taller than the Germans.

4. School children in Milwaukee are taller than school children in Boston. The weight of boys in Milwaukee is greater than that of boys in Boston. Girls in Boston are slightly heavier than in Milwaukee. The superiority in height is probably due to the less degree of density of population in Milwaukee as compared with Boston; the struggle for existence is not so severe, and the life in Milwaukee has fewer urban disadvantages than in Boston.

4. The height of an American born man as is shown by these tables, is apparently more modified by the conditions accompanying density than by all other influences, race excepted; urban life as compared with rural life tending toward a decrease of stature. The forces here referred to act at all ages from five upward.

6. The rate of growth of Germans is markedly modified by residence in this country through one generation. In inter-marriage between Americans and Germans the offspring seem to take the habit of the taller parent.

7. The growth of the body and of the lower extremities takes place in such a way that the length of the body of the girl is less than that of the body of the boy until the tenth year, and thereafter greater until the sixteenth. From fifteen to eighteen the bodies of girls grow only two inches, and the bodies of boys over four. For the lower extremities, at nine years those of the girl are longest; at eleven shorter, and from twelve to fourteen again longer. At fourteen the lower extremities of girls almost cease growing, while those of the boys increase by four inches between the ages of fourteen and nineteen."

Dr. G. F. Witter presents some startling facts respecting tobacco, an abstract of which we give elsewhere.

The work of the board is even better than during former years. We regret to see that so small a salary is paid to the efficient secretary of the board. It is to be hoped that this manifest injustice will speedily be removed.

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Fourth Annual Report of Illinois State Board of Health.*

So much of this report as relates to medical colleges we have previously noticed from a reprint of that portion of the volume. Although twenty-three persons were prohibited from practicing in the state during the quarter ending September 30, 1881, there is still one physician to every five hundred and forty inhabitants. One doctor to every five hundred and forty persons! What must be the proportion in a state not having a state

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*Fourth Annual Report of the State Board of Health of Illinois. Springfield, Ill. 1882. Paper, pp. 218.

Board that looks after the doctors' qualifications?

One important decision of the Board is "not to examine candidates for certificates to practice unless they have studied for three full years." The Board also defines its exact meaning in its use of the term student. These students are not to prescribe for the sick on their own responsibility.

Besides the accounts of several meetings of the Board the report contains a report of the proceedings of the Chicago conference on small-pox. Jn. 1881. It was from this origin that the plan was developed by which the inspection of immigrants as they enter the United States was accomplished. Under the National Board of Health this has been carried on for some time, with, it is claimed, good results. The appropriation given the National Board of Health has given out and the system of inspection dropped for the present.

It seems a cumberous manner to insure protection, but it is better than none. About one quarter of the volume is devoted to a report of the proceedings of the sanitary council of the Mississippi Valley. Thus it appears that almost the entire attention of the Board of Health, of Illinois has been devoted to the improvement of the character and diminishing the numbers of the medical profession. Illinois needs another Board of Health to look after other classes of citizens. We cannot believe that all the violators of the public health are located in the medical profession of the State of Illinois. How about lawyers, ministers, school teachers, legislators, merchants, manufacturers, farmers, railroad men, vessel men, and the numerous artisans of all classes? Do the acts of these not require regulating in the interests of public health? Then as to the work done by other State Boards in instructing the people in questions of hygiene, and the nature and causation of disease we find little of this in this volume. We think that the Illinois doctors are getting rather more than their share of public attention. They doubtless need it all. But other classes should not be so completely neglected. Evidently this Board has all it can do to keep the medical profession in order. Hence we suggest that the state appoint other Boards to look after the other departments of public health, and especially after other callings than the medical. Meantime other states can learn wisdom in the appointment of a Board like that of Illinois to look after the medical profession, as we are quite sure such boards are needed greatly. Personally we are very grateful for the vast amount of valuable information respecting medical colleges here exhibited. Most cordially do we wish that the secretary of this board could have similar power in the States of Missouri and Ohio, or even Michigan. It must not be forgotten that the results of the Illinois medical laws are due less by far to their wisdom than to the indefatigable energy and perseverance and tact of this same secretary. It is not common to find men such as these willing to give their entire life to such work for the pittance of the salary attached to it. Unquestionably Dr. John H. Rauch is the life of the Illinois Board. He has a positive genius for the work he is pursuing just as Dr. H. B. Baker, of the Michigan State Board of Health has a genius for the study of vital statistics and the associated sciences. The power of such men for good to the medical profession is immense. May more like them be developed in every state until the people shall be educated to a proper appreciation of the causes of disease and the work required for their removal.

Transactions of the Medical Society of the State of Tennessee for 1882.*

Dr. W. M. Clark presents the especial needs of Tennessee in the direction of "preventative medicine." He closes with the thought that only as all the people in the state, including the medical profession, work in harmony, shall the greatest progress be made. If only the medical profession could unite in heart and in deed, then it would occupy its proper place in the government of the people. This is just as true in Michigan as in Tennessee. But it is vain to expect to see it realized in modern times.

"Antisepsis" is discussed by Dr. Henry Ess. He tries to reduce the mass of our present knowledge to a point at which all physicians can comprehend and apply it.

In a paper upon Urethral Strictures, Dr. W. F. Glenn discusses the causes of strictures, the parts of the urethra most frequently affected, the symptoms, results and treatment of this affection. He especially dwells upon the use of the galvanic current in the treatment of urethral stricture. He claims excellent results.

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*MEDICAL SOCIETY OF THE STATE OF TENNESSEE. Transactions for 1882. Paper; pp. 182.

Dr. Alex. Erskine treats of the "Principles Involved in the Management of Abortion." These are fairly stated as at present accepted by the profession.

Dr. D. D. Saunders presents "Observations Upon the Five Epidemics of Yellow Fever in Memphis, Tenn."

Dr. Thad. Donohue presents the reasons for using "Morphia Hypodermically in the Convulsions of Children."

Dr. A. G. Sinclair presents, "Some of the Practical Bearings of Iridectomy," as they are usually given in the text books.

Dr. G. A. Baxter discusses "Psychological Medication," and presents many curious facts.

Dr. J. W. Davis treats of "Medical Education."

Dr. T. K. Powell discusses "Typho-Malarial Fever.

We were interested in a paper on "Reflex Troubles the Result of Rectal Irritation, and Their Treatment," by Dr. W. F. Clary.

Dr. T. J. Happel details an account of "Epidemic Dentistry."

The final paper is by Dr. R. B. Maury, upon "The Prevention of Puerperal Diseases."

These papers are mostly short, but, on the whole, of interest to the general profession, and indicate a considerable professional activity in Tennessee.

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Goodwin on the Hospital Treatment of Diseases of the Heart and Lungs *

The author has endeavored to place before such members of the profession as cannot visit the metropolitan hospitals the exact mode of treating the diseases of the heart and lungs practiced by the physicians of these hospitals. This may or it may not be such as can be successfully followed by others far from these hospitals and in private practice, but it will at least be suggestive of the proper mode of procedure in the care of these cases. Nine of the New York city hospitals are represented in this work and about twenty different physicians, more or less well known to the general profession as medical teachers. Over three hundred prescriptions are fully given. This will be a boon to such as are accustomed to copy prescriptions for their own use. It will be helpful to such as make a more scientific use of prescriptions as showing ways of combination that had not occurred to them. It will not be surprising to find the greatest diversity of treatment of the same disease, and to observe the great emphasis placed upon it by its originator.

Certainly all general practitioners will be glad to read this little book and place it in their libraries.

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Satterthwaite's Manual of Histology—Second Edition.*

It is but a short time since the issue of the first edition of this work. This fact attests the popularity of its authors and the usefulness of the work. The present edition differs from the first mainly in that it contains an appendix of eleven pages. This appendix contains a short paper upon the lymphatic system, by Dr. W. R. Birdsall; on the salivary glands by Dr. Edmond C. Wendt. These give the recent positive contributions to our knowledge of these subject. The rest of the work is left as in the first edition, owing to the expense attending the alterations to other portions. But the author says that he and his fellow-laborers concluded that the additions to our real knowledge would not warrant any changes in the text.

The whole, like the first edition, is elegantly issued by the publishers.

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Transactions of the Maryland State Medical Society for 1882.†

This volume contains some excellent papers from the members of the teachers of the Johns Hopkins University. From these we made copious abstracts soon after the meeting. The reports of the various sections of the society were well prepared and instructive, especially to such as had not kept pace with the general medical progress as published in the several medical journals and other medical publications. The report of the discussions is good. Altogether this society is to be congratulated for its good work as shown in these transactions.

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*The Hospital Treatment of Diseases of the Heart and Lungs, with over three hundred and fifty formulæ and prescriptions, as exemplified in the hospitals of New York City. By Charles H. Goodwin, M. D. New York: C. H. Goodwin, 245 West Fifty-third street. 1883. Pp. 196. Cloth, price $1.50.

*A Manual of Histology. Edited and prepared by Thomas E. Satterthwaite, M. D., in association with numerous co-workers. Second edition enlarged and revised, containing two hundred and two illustrations with an appendix. New York: William Wood & Co. 1882. Pp 490. For sale by John Willyoung, Detroit, Mich.

†Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-fourth annual session. Paper pp. 248.

Pitzer on Electricity in Medicine and Surgery.*

The object of this work is to help the medical student to acquire the principal facts embraced in the subject of electricity and electro-therapeutics. In pursuance of this object the author has illustrated by cuts the several forms of apparatus that he has found useful and enforced his practical points by the reports of cases. The book is well issued and will meet the wants of those for whom it was written.

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Abstracts from Exchanges.

Pepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Anatomy.

A New Method of Making Anatomical Preparations and Preserving their Flexibility.—Dr. R. Park (*Annals of Anatomy and Surgery*, March, 1882) describes this method as follows:

The joints to be prepared—supposing these parts to be selected for preparation—should be carefully dissected, by aid of maceration, so as to remove thoroughly all the soft parts except the ligaments. If one desires to use special time and care, the preparation may be soaked a few days in benzine to dissolve out the fat. It may then be bleached by hypochlorous acid in the following way: A small quantity—4 to 5 grammes—of powdered potassium chlorate is put in a stone jar, and 20 cc. of strong hydrochloric acid poured over it. The jar is then filled with water, and the specimens dropped into it. From six to thirty hours in this solution suffice. After still further scraping and cleaning they are finally placed in the following mixture:

Coffee sugar	2 parts.
Saltpetre	1 part.
Methylic alcohol	1 part.
Glycerine	16 parts.

A little water may be used to assist in the solution of the solids; or a good article of syrup may be substituted for the sugar. A little thymol may also be added with advantage, although it is not necessary. It should be dissolved in the methylic alcohol.

In this mixture the specimens are allowed to remain from one to two or even three weeks, according to their size. After removal from it, they are allowed to drain for a few days, and then need only a little trimming and scraping before being placed in the cabinet. In most cases it will be well to scrape off all the periosteum, except where it would interfere with the ligaments.

Under this treatment the ligamentous structures become as flexible as they were during life, while thick tendons become almost transparent, and they remain so. Joints thus prepared with their capsule properly dissected make, for the anatomist's eye, really beautiful preparations. Instead of losing mobility, they become even more limber with time.

I made in this way a full series of preparations of the joints of the body, over a year ago, and they are now better in every respect than when first made, save that they have darkened a little from their original bleached condition. I fully expect them to last as long as I do. There is not the slightest odor of decomposition about them.

Subsequent trials and experiments have convinced me that this method may be successfully applied to all portions of the body, and specimens of all kinds. Preparations of an entire limb may be made in this way, which shall be perfectly flexible and serve the purposes of demonstration much better than the dried and varnished specimens found in our museums.

In making them, the vessels should, of course, be injected first, preferably with a mixture of gelatin and glycerine used warm. By this method there will be very little shrinking and shrivelling up of structure. Pathological specimens, of joints especially, can be in this way kept to show to best advantage.

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Brain Weight in its Several Relations.—Pfleger (abstract in *American Journal of Neurology*, January, 1882), from important and cautious studies made lately, says:

1. That there is no marked difference between the relation of the brain-weight to the cranial capacity in the adult between the twentieth and sixtieth year: a decided decrease of the brain-weight occurs after the sixtieth year, and a still more pronounced decrease after the seventieth. In all these respects, both sexes appear to be equal.

2. The absolute brain-weight increases as the body-length and trunk-length increase.

3. The relative brain-weight decreases with increase of stature; this decrease is more constantly expressed in the isthmus and cerebellum than in the cerebrum.

4. The absolute increase in weight accompanying increase in stature is not an equal one as regards the different brain-segments,

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*Electricity in Medicine and Surgery. By George C. Pitzer, M. D., St. Louis, Mo. 1883. Pp. 83. Cloth, price $1.00.

it is a constant factor only in the case of the cerebrum.

5. The skull cavity of the female is smaller than that of the male, in proportion to the body as well as the trunk-length.

6. The female has an absolutely and relatively lesser weight than the male brain.

7. In comparing the weight of various cerebral segments in the sexes, the greatest difference is found in the cerebrum, the least in the cerebellum; it is also found so in those dying of acute diseases; the cerebrum is relatively greater in the male, the cerebellum and isthmus in the female.

8. The female brain appears to be a little heavier than the male, in proportion to the corresponding skull-cavity dimensions.

9. Even in this respect, it is found, however, that this relative greater weight is due to a preponderence of the isthmus and cerebellum.

10. The sexual difference in brain-weight is greatest in those dying of acute diseases, reaching as high as fourteen per cent.

11. The sexual difference is lessened by chronic diseases in the sane and in insanity, being ten per cent. in the former and eight per cent. in the latter.

12. The male brain loses more in weight with insanity than the female brain, and this relation remains unshaken by excluding the cases of paralytic dementia.

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Hygiene.

OUR DRINKING WATER.—Dr. N. B. Sizer (Proceedings County of Kings, March, 1882,) formulates our present scientific knowledge of water thus:

1. No water unfit for washing in is fit to drink.

2. All soft water possessing a visible color, taste or odor is probably unsafe, but can be made potable by bringing it up to 100° C. (212° F.) and keeping it there for five minutes.

3. Rain water is the easiest accessible source of soft water; when caught in a proper cistern, from a clean roof, especially during the last half of a long rain, when both air and roof have been washed clean, it makes a very clear and sparkling water, and is always better after filtering through charcoal, being then healthful.

4. Hard waters are apt to act as a cathartic on those used to pure water, because they are generally dilute saline solutions, such as we use for that purpose, medicinally.

5. Organic impurity is often the source of very fatal epidemics, and is by many believed to be one of the great sources of contagion in typhoid fever and cholera.

Remember, that three-tenth grains of organic matter per gallon ($\frac{1}{2000}$ of one per cent.), has been known to do harm.

A tolerably accurate test, and useful if organic matter is suspected, is as follows:

Sol. A.—Take 200 c. c. water, add two or three drops sulphuric acid.

Sol. B.—Prepare a solution of permanganate of potassium of the strength of thirty-two centigrams per litre (2½ grains in one pint) of distilled water. Thoroughly mix three drops of Sol. B in Sol. A and note time. If Sol. A is bleached in less than ten minutes, organic matter is probably present in sufficient quantity to do harm.

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Practice of Medicine.

MAYER ON DIPHTHERITIC PARALYSIS.—Paul Meyer (*Virchow's Archives*, *The Brain*) describes the appearances he has met with in a well marked case of diphtheritic paralysis. He has found that the peripherical nervous system exhibits well-marked signs of parenchymatous neuritis, the characters of which he describes in detail and figures.

The alteration was best seen in the branches to the diaphragm and to the abdominal muscles (including the cremaster.) Next to these came the nerves to the ilio-psoas, deltoid, triceps; then those of the glutæi and adductors of the thigh. After these came the nerves to the quadriceps, and the muscles of the forearm and leg. In general the alteration is very diffuse, and there is no special predilection for any particular group, such as flexors or extensors.

Degeneration was also found in the cutaneous nerves, but to a less extent than in the motor branches.

The cranial nerves also exhibited well-marked signs of degeneration, specially well seen in the oculo-motor, abducens, and glosso-pharyngeal.

In the large nerve-trunks the degeneration was not so pronounced as in the nerves of the face and neck. The degeneration appeared to be inversely proportional to the calibre of the nerve. Degeneration was also visible in the anterior and posterior spinal roots, more particularly in the cervical and lumbar region than in the dorsal. The anterior roots were relatively more affected than the posterior.

Degeneration was also to some extent evident in the multipolar cells of the cervical and lumbar region of the cord. The cells of the posterior cornua were also affected to some extent.

The author concludes that the diphtheritic infection attacks the nervous system in general, both spinal and peripheral, and that there is no reason to regard the one as secondary to the other.

DETROIT LANCET.

VOL. VI. March, 1883. No. 9

Original Communications.

[Read before the Detroit Academy of Medicine, December, 1882.]

The New Pharmacopœia.

BY A. B. LYONS, M. D.

THE first pharmacopœia published in America was issued in 1808 by the Massachusetts State Medical Society, and this was followed in 1816 by another published by the New York Hospital. Both these, however, were local in their origin, and aimed only to supply locally the need for some fixed standard. Previously the various pharmacopœias of London, Edinburgh and Dublin, as well as those of continental Europe, had been indiscriminately used, giving rise to endless confusion.

The time, however, already demanded a plan of broader scope, and in the year following the publication of the pharmacopœia of the New York Hospital, Dr. Lyman Scudder submitted to the medical society of the county of New York a project for the formation of a national pharmacopœia. Four conventions were called, representing respectively New England, the Middle, Southern and Western States, to be made up of delegates appointed by the various state medical societies, and incorporated colleges of physicians and surgeons, or medical schools throughout the United States. Only two conventions actually met, one in Boston and one in Philadelphia, and each adopted a provisional pharmacopœia to be submitted to a general convention, which finally met in 1820, and framed from these two the first national pharmacopœia.

This was published the same year, a second edition appearing in 1828. The convention made provision before its adjournment for subsequent decennial revision of the work, and this plan has been substantially carried into effect. The earlier pharmacopœias were published both in Latin and in English. The revision of 1840 appeared in English alone, and that language has ever since been considered universal enough in this country to subserve every purpose.

In 1830 the surgeon-general of the army was invited to share in the work of this convention, and in the revision of 1850 a formal invitation was for the first time extended to the schools of pharmacy in the country, which ever since have rendered most important assistance in the work.

At each succeeding revision of the pharmacopœia the labor involved has necessarily been greater than in the last, so rapid has been the progress in the art of pharmacy, so numerous have been the discoveries and observations that have been accumulated in the 10 years interval, and so much more needful has it become to bring the pharmaceutical preparations of all the civilized world as nearly as possible into uniformity.

Thus it has happened that while the pharmacopœia of 1820 was issued in two languages within 12 months after the meeting of the committee, the present revision has required nearly two years and a half for completion.

My object to-night is to invite your critical attention, now that the work is in our hands, to the work that has been done. Physicians are apt to give too little heed to these matters. They forget that this is their own work; that each member of the profession is interested in having the result as perfect as is possible; that it is the privilege of each to have a share in the work—at least to present any matter that he may deem important to the committee which indirectly he has helped to appoint—and that the work being finished, each one is bound to accept the dicta of the one authoritative code, and to abide by its interpretations of the meaning of pharmaceutical terms. This implies that he must have a knowledge of the pharmacopœia not vague and general, but, in regard to every question of vital moment, minute and complete. Realizing that the busy practitioner has little time to devote to independent study of a subject which necessarily is unfamiliar in its details, I have ventured this evening to ask your attention especially to the *changes* in the pharmacopœia which have been made by the present revising committee, particularly those which modify the doses of active remedies, and those relating to the terminology to be employed in prescribing.

The work as a whole is one of which we have reason to be proud. No better pharmacopœia has ever been published. In comparing it with the pharmacopœia of 1870, we notice at once that the present volume is about double the size of the old one, and the most superficial examination shows that this difference is due largely to the addition of descriptive matter, tests of genuineness and purity, methods of assay, *e. g.*, of opium, etc., all indicating progress in scientific exactness in all that pertains to technical pharmacy.

The most important and radical change which has been made in the present revision of the pharmacopœia consists in the substitution of weights for measures throughout (except in the case of the fluid extracts), and the recognition and partial adoption of the metric system of weights and measures. By these changes the U. S. Pharmacopœia is brought into harmony with those of continental Europe, and its formulas acquire a character of scientific precision which it was difficult to secure as long as the old incommeasurable units were retained. The advantages, however, which accrue from these changes are only indirectly of interest to the physician.

The nomenclature of the pharmacopœia has been revised on the basis of certain general principles with which every physician ought to make himself familiar. It is attention to niceties like these which point out the man who adds to his other professional attainments those habits of precise thinking and reasoning which characterize the scholar. It is oftener out of an excusable ignorance of the existence even of rules governing pharmacal nomenclature than from mere inattention that physicians blunder in the terminology of their prescriptions. For this reason I venture to quote here the principles laid down in the preface to the pharmacopœia.

1. The officinal (that word, by the way, in the sense of authorized or official, is an inexcusable perpetuation of an old blunder) Latin title of a vegetable drug, is to be the botanical genus name. This rule finds exceptions in the case of a few old and well-known drugs whose names have been established arbitrarily by long usage, *e. g.*, belladonna, ipecacuanha, senna, etc.

2. The officinal Latin title, selected according to the preceding rule, is to denote the part of the plant directed to be used, provided only one part of the plant is officinal. *E. g.* Hyoscyamus means henbane leaves, rheum, rhubarb root, etc. In case more than one part of the plant is used, the part meant must be added in the title, *e.g.*, colchici radix, colchici semen, etc.

3. The English officinal title shall be the botanical (generic, or specific), rather that the vernacular name, except in cases where custom has already fixed the name arbitrarily.

4. The titles of compound medicines are to express their composition or indicate their constituents, rather than their properties. (But such familiar established names as pil. cath. co., and collodium flexile, are allowed to remain as exceptions).

5. The Latin names of alkaloids have the uniform termination *ina*, and the corresponding English names the termination *ine*. It will, therefore, be incorrect hereafter to write quinia, morphia, veratria; we must write sulphate of quinine (quininæ sulphas), acetate of morphia (morphinæ acetas), etc. Neutral principles are distinguished from the alkaloids by the Latin termination *inum*, English *in*, *e. g.*, picrotoxinum, picrotoxin; santoninum, santonin.

6. The gender of the Latin names of salts ending in *as*, and *is*, has been restored to the masculine, the change to feminine made in the revision of 1860 having been based on an error. We now write, therefore, ferri sulphas exsiccatus, not exsiccat*a*.

7. A number of special alterations in nomenclature have been made, for reasons which in each case seemed good and sufficient. Among them we note acidum hydrochloricum, for ac. muriaticum, chirata, asafœtida, cambogia, for chiretta, assafœtida, gambogia, lupulinum, glycerinum, pyroxylinum, for lupulina, glycerina, pyroxylon; massa for pilula (in the sense of pill mass), sulphuridum for sulphuretum, manganum for manganesium, bromum, chlorum and iodum, for brominium, chlorinium and iodinium.

8. In writing botanical names, the rules of the International Botanical Congress (Paris, 1867), have been adopted; the species name is to be spelled with a small initial letter (even if derived from a geographical name), except when the name is one that had formerly been given as generic, *e. g.*, Datur Stramonium, or when derived from the name of a person, *e. g.*, Strychnos Ignatii, or when it is an indeclinable noun, *e. g.*, Erythroxylon Coca.

In applying the above rules certain important changes have been made to which attention is especially directed.

Aconite leaves are dismissed from the list of officinals; hence by rule 2, the name of aconite root becomes simply aconite (aconitum): In the same way, conium leaves having been omitted from the list, conium seed becomes simply conium. It will be seen that the names of the officinal preparations of these two powerful drugs are no longer discriminated as formerly from weaker preparations of a similiar character. The physician here clearly must not, for the present, at least, follow the pharmacopœia in prescribing, for if he does so the apothecary will not be justified in putting up either preparation without consulting the physician, and meantime valuable time must be lost, and either the physician or the apothecary is sure to be blamed.

The name alum, which since the revision of 1870 has been applied to sulphate of aluminum and ammonium is restored to its old signification of potassa alum.

Indian hemp (cannabis indica) is now called Indian cannabis (why not simply cannabis?). Ipecacuanha is ipecac; dandelion is taraxacum; horehound, marrubium, etc.

Male fern is now aspidium, both A. filix mas and A. marginale being recognized under this designation.

The name phosphate of iron now designates a compound analogous to the familiar pyrophosphate of iron, instead of the insoluble precipitated phosphate (ferrous) of former editions, although attention is nowhere directed to the circumstance that any change has been made.

The present pharmacopœia contains in all 997 titles, only 27 more than the pharmacopœia of 1870. No less than 229 titles, however, which appeared in that edition are omitted in this. The following table classifies the articles thus dismissed and added:

	OMITTED.	ADDED.
Crude drugs (chiefly vegetable)	78	30
Inorganic drugs or chemicals	28	60
Pharmaceutical preparations	106	150
Miscellaneous	17	16

The pharmaceutical preparations include:

	OMITTED.	ADDED.
Waters	2	..
Cerates	3	..
Confections	3	..
Decoctions	10	..
Plasters	2	..
Solid extracts	13	10
Fluid extracts	2	35
Glycerites	5	..
Infusions	29	..
Solutions	4	..
Oils	5	..
Juices	2	..
Pills or pill masses	3	..
Suppositories	9	..
Tinctures	7	22
Ointments	7	..
Wines	3	6
Abstracts	..	11
Syrups	..	11
Elixirs	..	1

A glance at this table shows that inorganic drugs and chemicals are becoming of greater relative importance as therapeutic agents than formerly, in spite of the claims of the so-called eclectic school of medicine, and that among galenical preparations, while infusions and decoctions are going out of vogue, more attention is given than ever to concentrated tinctures (fluid extracts) and to the more palatable preparations represented by the elixirs and syrups. That only a single "elixir" is recognized has doubtless been a surprise and a disappointment to many, and especially to physicians. The reasons I will not here discuss, but it is certain that this class of preparations is deserving of recognition and of definition among the preparations of the pharmacopœia.

Among the articles added to the list I note especially "phosphoric acid," a 50 per cent. solution of orthophosphoric acid; calx sulphurata, sulphurated lime, commonly known as sulphide of calcium; petrolatum, a substitute for cosmoline, etc., besides numerous now familiar remedies such as salicylic acid, nitrite of amyl, ammoniated glycyrrhizin, etc.

Saccharated pepsin is recognized, but is assigned a strength 4 times as great as that of the ordinary commercial article. One grain is required to dissolve 50 grains of coagulated albumen. A pepsin of this strength if prescribed in the customary doses may be expected to do some good, while the ordinary saccharated pepsin is too weak to produce appreciable effects.

Charta potassii nitratis, nitre paper, is placed on the list, also a styptic collodion. Elaterium has been dismissed as too variable in strength to be of any use; it is replaced, wisely as it seems to me, by the definite active principle elaterin.

On the other hand digitalin and aconitia have been dismissed on account of the variability in composition and in therapeutic activity of the preparations that have been offered under these names. Dr. Squibb has recently shown that aconitia procured from different manufacturers varied so that while some samples were 100 times as active as the root, others apparently had scarcely more effect than the root itself.

Opium denarcotisatum is a desirable addition to our list of opiate preparations. It is a solid representative of the denarcotized tincture of opium and it has a decided advantage over opium in that it is of a definite uniform strength. It contains 14 per cent. of morphia, and is therefore of about the strength of good powdered opium. It fills nearly the same place, at least therapeutically, as the copyrighted preparation svapnia, only it is 40 per cent. stronger than that claimed to be.

On the very first page of the new pharmacopœia we meet with the title "Abstract of Aconite," and we find it the first of a list of eleven "abstracts." The term is new, and it must be admitted, not a happily chosen one. The list includes preparations of some of the most important vegetable drugs in the materia medica. The memory of the student is already unduly taxed by the number of preparations of these drugs, of varying strength, already in the list of officinals. Now we have offered us gratuitously a new class of preparations, uniform indeed in one sense, in that in each case the abstract is double the strength of the drug from which it was prepared, but as a class having no particular *raison d'être.* We are told that these preparations are intended to take the place of the powdered solid extracts which, it appears, are considerably in demand in some localities. But a powdered extract, if it is to be of any use, must represent the drug from which it is prepared in a concentrated form—must be at least as strong as the ordinary solid extract. It would have been much better to have brought the strength of these preparations into a definite relationship with the corresponding pilular extracts if any attempt at uniformity were to be aimed at. But with few exceptions these preparations, as they stand, have absolutely nothing to recommend them. Mandrake, for example, is already perfectly represented by the officinal resin, which is a tolerably uniform and a highly concentrated preparation. Of nux vomica we have already an extract which can be readily reduced to a powder. Jalap is represented already by the resin, and if another preparation be required, an alcoholic extract leaves nothing to be desired.

It is safe to predict that the next revision of the Pharmacopœia will "dismiss" the whole list of "abstracts," and, if so, it should be one more lesson to future committees to confine the additions they make to the pharmacopœia to articles already known in name as well as in reputation to prescribers and dispensers. The hypothetical processes published ten years ago for fluid extracts—with glycerin—should have made the present committee particularly slow to propose innovations.

In connection with the subject of "abstracts" the new class of "triturations" may be mentioned, but in this case with hearty commendation. The only possible objection that can be urged against them is the circumstance that homœopathic pharmacy has anticipated us in their use, but we cannot overlook the utility of these dilutions of powerful medicines like strychnine and arsenious acid, nor the advantage of having for such dilutions a uniform standard strength not easily mistaken nor forgotten. A "trituration" is composed of one part by weight of the drug, rubbed to an impalpable powder with nine parts of sugar of milk.

The ratio of one in ten established for triturations is adopted also for liquid preparations. The dilute acids are of this strength, except acetic acid, which contains only six per cent. of absolute acid, and hydrocyanic acid which still contains two per cent. (by weight) of real acid.* The same ratio is adopted universally for infusions and decoctions, and for many of the wines, spirits and tinctures.

It is questionable whether this sweeping change, particularly in the case of infusions and decoctions, is wholly advantageous. Perhaps five per cent. would have been a better proportion, but here the committee have evidently followed the pharmacopœias of Germany and France—doubtless on the whole wisely.

But the uniformity secured by a decimal ratio is after all often delusive. For example, in the case of the mineral acids, the dilute acid contains ten per cent.—by weight, of course—not of the strong acid, but of a hypothetical absolute acid. In fact, dilute hydrochloric acid contains about one part of the strong acid in three, dilute nitric acid one part in seven, dilute phosphoric acid one part in five, dilute nitro-muriatic acid about one in five, sulphuric acid alone one part in ten, the aromatic sulphuric acid, however, containing one part in five. Clearly in this case the boasted "uniformity" is of too transcendental a nature to be of any practical consequence either to physician or apothecary.

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*This preparation, in fact, being now made with dilute alcohol instead of water, is about eight per cent. weaker than formerly.

The same thing is illustrated well in the case of the preparations of opium. These included in the pharmacopœia of 1870 a vinegar, three several tinctures, besides the camphorated tincture, and a wine, only two agreeing in strength, viz., the tincture (simple) and the deodorized tincture. There is no good reason why these preparations, excepting paregoric, should not be made of uniform strength, and the existing differences were not only a cause of much perplexity to young physicians, but a fruitful source of errors even with older prescribers.

Other pharmacopœias have already established the desirable ratio of one in ten, which is moreover about a mean of the existing ratios. On all accounts it would be advisable to adopt this uniform ratio. Thus, with faultless logic reasoned the revisers, but mark the result as exhibited in the following table:

	Weight in grains corresponding to one grain of opium.		Minims containing one grain of opium.		Minims containing 1 grain opium, standard of 1870.
	U. S. P 1870.	U. S. P. 1880.	U. S. P. 1870.	U. S. P. 1880.	
Acetum Opii.......	6.13	10.	6.4	9.8	7.
Tinctura Opii.. ...	11.11	10.	12 8	11.1	7.93
Tr. Opii Deod.....	11.6	10.	12.8	10.6	7.57
Tr. Opii Acetat....	10.	10.	10.	——	——
Tr. Opii Camph....	244.	250.	272.	273.	195.
Vinum Opii.......	7.7	10.	8.	10.3	7.36

Column two of this table exhibits a beautiful uniformity and simplicity of ratios, but unfortunately this column has only a remote interest to the prescriber. The one fact he wishes to bear in his memory in regard to each of the preparations is that which is stated in columns three and four of the table, and here we find actually almost as much uniformity in the preparations of the U. S. Pharmacopœia 1870 as in those of the late revision. In short, it appears that it is the pharmacist after all and not the physician who is to reap the principal benefit in the simplification of all these formulæ. It is true that the physician may avail himself of these benefits by writing his prescriptions in the metric system and using weights throughout instead of measures. Heretofore it has been customary with those who used the metric system in prescribing to substitute fluid grams for grams in the case of all liquids. This practice must be discontinued, but in order to adjust the dose to a measured quantity—e. q., a teaspoonful—the last item must be ordered in quantity sufficient to make a certain definite volume. We cannot expect, however, that physicians generally will revolutionize their habits of prescribing or that apothecaries will be ready to dispense liquid medicines in small quantities by weight even if they are so prescribed; but these are difficulties that cannot be avoided in the present transition period in pharmacy. I have called attention to them not in the way of finding fault with what has been accomplished, but to show that the mathematics of pharmacy are not yet so far simplified as not to demand patient study on the part of physicians and medical students.

It remains to say a few words of the actual changes which have been made in the strength of officinal preparations. The attention of the profession has already been called to the change made in the standard strength of opium. While formerly opium was required to contain not less than ten per cent. of morphine, it must now contain at least twelve, but not more than sixteen per cent. of that alkaloid. The reason why the standard has been raised is that the opium which comes to our market actually has this strength, and as it is commonly used by pharmacists without being assayed the strength of opium preparations is not actually affected materially by the change.

While there is force in this reasoning, it does not fully sustain the action that has been taken. In the first place the range, from twelve to sixteen per cent., is altogether too great. It is broad enough to cover almost every sample of genuine opium, and therefore does nothing towards fixing a standard strength for the preparations of opium. My own private judgment would have selected 12½ per cent. as the appropriate standard strength for powdered opium, and there ought not to be a variation allowed of more than one-half per cent. above or below this standard. Other pharmacopœias, however, still adhere to the old standard of 10 per cent., and in view of this fact I should have been inclined to retain this, not as a minimum, but as an absolute standard for this important drug. But it is too late to offer suggestions. We must accommodate ourselves to the new theoretical standard, adopting, however, from the new officinal, "denarcotized opium," the exact figure of 14 per cent. in place of the vague

12 to 16 per cent.* Accordingly in the last column of the foregoing table, the value of the several liquid preparations of opium is given in terms of a ten per cent. opium.

The most important changes aside from those in preparations of opium are the following:

Tincture of aconite root is reduced in strength more than 15 per cent., but is not by this means brought into uniformity with the corresponding preparations of other pharmacopœias. [The Br. directs one part in eight fluid parts; the P. G., one part to ten by weight; U. S. P., 1880, four parts in ten by weight.]

I have already called attention to the *name*, which now stands simply tincture aconite, but which physicians must invariably write, as heretofore, tincture aconite root.

Tincture of cannabis Indica is now to be made from the crude drug, but its strength is reduced 50 per cent. It is thus brought into accord with the preparation of the French codex, but it is no longer as formerly essentially identical with that of the British and German pharmacopœias.

Tincture of nux vomica is reduced in strength at least 40 per cent., although it is made more uniform in character than hitherto, its strength being adjusted by the amount of extractive it contains, rather than by the quantity of drug employed in preparing it. It is of about the strength of the French preparation, 1:5, the German being 1:10, British 1:8 (by measure). The old tincture was made in the proportion of 1:2 (by measure), and hence if the drug were exhausted would be nearly three times as strong as the present.

The terms alcohol and dilute alcohol have a new meaning. The former is now applied to commercial alcohol containing about 93 per cent. (vol.) of absolute alcohol, and formerly designated stronger alcohol. The latter is increased in strength from 47 to 53.5 per cent. (vol.)

Many minor points of criticism or of comment I have been obliged to omit in this hasty review. My chief purpose will have been accomplished if members of the Academy are induced to study for themselves more carefully than they would otherwise have done their own pharmaceutical codex, and be prepared when the time for a new revision comes to offer intelligent criticisms and suggestions.

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The Power of Alcohol Over the Nature of Man as Displayed by the Modifications of Mind, Morals, and the Physical Constitution Incident to its Use.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

PART IV.—DIPSOMANIA AS A SPECIAL NEUROSIS—MORAL FACULTIES MODIFIED BY ALCOHOL—MOTIVE—CHARACTER OF, DETERMINED BY THE HEALTH OF THE ORGANIC CONSTITUTIONAL PROCESSES—RESPONSIBILITY OF THE DRUNKARD FOR CRIME—WILL AND IMPULSE CONTRASTED—IMPULSE UNCONTROLLABLE—ALWAYS A TRAIT OF MENTAL DEFECT—ALWAYS THE INCENTIVE TO PERIODIC INEBRIETY.

HAVING thus spoken of the origin and nature of the constitutional instability of the nervous system which assumes so many forms, and yet is in many essentials one and the same—all of which is the undoubted result of physical modifications of a recondite nature —I will proceed to the consideration of the various aspects of the special neurosis dipsomania, in its strictly mental attitudes and conditions.

This will necessarily lead to the observance of various defects and lapses in mental perfection and continuity. It will incidentally introduce the subject of moral, and, of course, legal responsibility. And this subject will naturally assume two points of view: one is the responsibility which attaches to the acts of drunkenness, as that state is considered with respect to the motives which were involved in its inception. The other chief point of view is the responsibility of drunkenness, not as connected with the moving causes of its initiation, but as modified by anæsthesia, constituting as that state does, a leading factor of the condition and character of intoxication. I will now proceed to the analysis of the first point of view, in which the moral faculties are the subjects of alcoholic influence and modification.

There seems to be a real and important distinction between the motive which impels volition and action, and the object of the activity which results from the volitional impulse.

Motive is defined to be: "That which determines the choice or moves the will; that which incites to action; inducement; incentive; cause; reason; principle." (Webster.)

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*Dr. Squibb has increased the strength of his officinal preparations of opium just 50 per cent. to meet the requirements of the new pharmacopœia. While formerly he made tinct. opii of such strength that each fluid ounce contained 4 grains of morphia, he now makes it of the strength of 6 grains to the fluid ounce. Standard opium accordingly must contain about 13.9 per cent. of morphia.

"By motive, I mean the whole of that which moves, incites, or invites the mind to volition, whether that be one thing singly, or many things conjointly." (Edwards).

Therefore, motive goes before will, as will goes before conduct. There is and must be an initial, a starting point in all mental operations ending in physical action or in mental conclusion. Oftentimes indeed this condition of *ab initio* WANT is unquestionably a universal constitutional longing for some necessity, uprising in the physical, mental or moral nature, and which is the result of organic changes in the system at large: just as the feeling of hunger may be the result of analogous organic changes. At any rate, motive is a state of mind in some way established anterior to will and conduct.

It must be conceded that healthy motive implies healthy body and mind. This further pre-supposes a normal strength of the rational faculties, combined with a right state of the sensibilities. Mere reason cannot form a healthy motive without it is modified and softened and properly toned by healthy and just moral principles. Nor can morality or religion, in its spiritual sense as generally interpreted, with all its refining qualities, suffice for healthy and rational motive, unless it is corrected and limited within practical bounds by the purely rational faculties. The moral and the rational faculties must not only act in harmony, but they must preserve a just appreciation of the laws and the wants of the environments in order to insure a healthy display of will, or of volitional force. The results and objects of mental force are merely the reflections of the characteristics, sound or unsound, of such force. If that force, commencing in motive, is unsteady and divided and bewildered, the resulting conduct will truly interpret all these deficiencies.

If, therefore, the motive, the condition of mind or disposition antecedent to, and impelling to volitional activity, is the outcome of a state of constitutional nerve defect, instability or disease, the resulting phenomena will all partake of the defective nature of such motive. The will, and the conduct flowing from the will in such a contingency, will be lacking in some of the essential properties of perfection.

The established doctrine of all the metaphysicians is, that the mind of man is a unit. No matter what the mental act may be, whether of reason, or of sensibility, or of will, or whether of any of the subservient and minor properties of mental activity, the doctrine is that in each and every particular the mind acts as a whole—as a unit for the time being. There is absolutely no difference of opinion among mental philosophers on this point. Without at present noticing certain modifications to this doctrine suggested by high authorities in mental pathology, I will assume the metaphysical opinion to be correct for the preset. What is the inference to be drawn? Clearly, that if the mind is defective in one point, or one department, it must be, in some way, in all. If the motive actuating mankind is sound, and the outcome of sound health in all particulars, the will to act in obedience to the motive, and the various mental steps in effecting the practical behests of motive, will all display a sound and regular procession from one point to another—and from the first suggestion of the mental want, to its final consummation in fruition. The entire line of sequences, mental and physical, from first to last, will then preserve a natural harmony in all its parts, and will harmonize also with the sentiments of the average minds of men as they view the facts of the case.

But suppose the motive, the mental state preceding regular mental activity, is not healthy: suppose it to be the outcome of disease, of injurious habits, of damages to the brain, or the body otherwise, which have become constitutional in their nature; which have thwarted the growth of just conceptions, and warped the sensibilities of the healthy mind into unnatural and morbid feelings—what then would be the consequences of regular mental acts flowing from such motive; and how would the final deportment of the man comport with ordinary rational conduct?

In view of these principles, and of other principles previously discussed, it is assumed that in a vast number of instances the actual motive influencing conduct with respect to alcoholic drinks is found in the conditions of a morbid neurotic constitutional abasement. The motive to drink in such cases arises unbidden in the mind upon some inward and irresistible feeling; and this feeling is itself often aroused into activity by the presence of temptation, appealing to the neurotic diathesis through the senses. In a large class of drunkards we find something of the following nature: First, the presence of the unstable neurotic temperament calling for intoxication; and, second, the volitional force incited into activity, demanding alcohol as a means of establishing the intoxication.

But the character of the mental power so incited cannot be that of true and healthy will. The state of mind inciting its activity is not sound and normal. It therefore follows from the facts and principles already given, that the volitional force in the present instance is not will; but is something subservient or illegitimate, associated with mental defects—such force, for instance, as emotion, instinct, or impulse.

The question as to capacity for refraining from intoxication in alleged dipsomania, may be illustrated if not decided by the history of any case that happens to come under review. The true dipsomaniac is certainly affiliated with the truly insane. Ordinarily he may be shown to be a mere link in a chain of family insanity. I am tempted to give an example or two illustrating my meaning: T. S. sank into the lap of a companion while in a drinking place, and was soon discovered to be dead. He was a rather constant spasmodic drinker. His father and mother are most respectable persons in every way. He had two uncles each becoming deaf as they approached middle life. A daughter of one of these uncles also became deaf much earlier. An aunt is in the insane asylum. This young man was of superior intellectual capacity. His insanity assumed the form of irresistible appetite; in other words, it became moral insanity. Precisely how this was accomplished will be discussed a little further on. Another young man, a helpless dipsomaniac, one H. N., is in the insane asylum. His great aunt died in an insane asylum, and two other great aunts are nearly imbecile. On the father's side there is history of periodic drinking.

These cases are true dipsomania, and not defects of mind and morals which call for discipline. Here the inebriate diathesis is a symptom, and not a cause, of unsound mind. The capacity for freedom of choice is defective, if not sometimes destroyed; and, of course, there arise questions and doubts as to the amount and kind of responsibility that rests upon the periodic drunkard, for drinking, in his sober state, that which he knows will produce intoxication.

Here it will be well to give a hint respecting a grand factor of alcoholic intoxication. I can do no better than revert to the case of T—— S——. There was an undoubted morbid neurosis affecting his family strain. But this neurosis had ordinarily been simply localized and locked up in a defect of a special sense. Once only it became general in an aunt, who is an inmate of an insane asylum. In the case of T——, there was no fixing of the neurosis in a special sense. There was no indication of intellectual insanity; on the contrary, the rational faculties of the young man were exceptionally good. What then do we see? Simply this: an uncontrollable and insufferable general nervous uneasiness, making the life of the victim intolerable; unfitting him for the steady and regular exercise of those abilities he really possessed; and denying him the fruits of that mental labor of which he possessed the conscious power, without the means of its practical application; rendering his life, in short, inefficient from a nervous system unbalanced and "all at sea," in the fundamental particulars of sensation, of motion, and of purpose. The finer and more recondite sources of misery—the nervous instability, and the constitutional and morbidly sensitive irritability—find calm and repose at length, by the anæsthetic effects of alcohol. The inborn heritage of lunacy on one side, is balanced only by the quieting effects of inebriety on the other; and the call for alcohol is bounded and measured only by the irresistible and uncontrollable power of insanity.

This is one phase of moral insanity. Here, the motive is not the stimulating effects of intoxication, so much as it is the attainment of those anæsthetic effects of alcohol, which are factors of alcoholic intoxication.

It will now be proper to inquire into the actual nature of the irresistible force which directly incites to drink.

Will is never irresistible. It is subject to the influences of evidence and reason, and may in every instance be possibly changed and modified. But the incitement to conduct which depends upon nervous, and especially upon brain disease, is not subject directly to reason and evidence, and cannot, therefore, in any ordinary sense be controlled by them. There are several names accorded to certain incentives to human conduct that differ materially from the great mental quality called *will;* such names, for instance, as desire, inclination, instinct and impulse. Much might be offered upon the special characteristics of each of these mental offshoots, and the fine distinctions existing between them; and particularly as exhibitions of the distinctions existing between vicious depravity and moral disease. But such discussions are not now necessary. The points covering them will arise again and again in connection with the regular progress of the general inquiry upon alcohol and its mental relationships. It will, perhaps, not be out of place to again suggest, that while desire may be an inoffensive and proper enough incentive to conduct in many instances, it is also probably in some of its aspects the incentive which most generally inaugurates vicious and criminal activity; while impulse represents more distinctly that incentive to conduct which has its origin, or motive, in disease. The former is associated in the mind with the idea of a certain meditation and preparation, the latter with unconsidered spontaneity.

Believing the term impulse more clearly than any other to signify the power compelling the constitutional inebriate to drink, I will endeavor to give some idea of its nature and scope. A few remarks will introduce what I have to say about impulse. The thoughtless prescription, or the inconsiderate tender of the alcoholic cup, should not be held responsible as though creating the dipsomaniacal diathesis, so much as of being the occasion of the development of the potentiality of that morbid temperament, it being already latent in the constitution. The establishment of a habit of alcoholic indulgence is to be attributed most commonly to accidentally arousing into activity a slumbering neurosis, rather than to an obstinate and vicious persistence in a long course of excessive drinking. Could it be known with certainty where this neurosis is implanted, one could act intelligently upon that admonition which teaches the "danger of awaking a sleeping lion."

The predisposition to drink becoming operative, it will assume one or the other of two phases. It may be spasmodic (periodic), or truly impulsive; or, it may be continuous, with or without serious intoxication. To the former the present inquiry is for the time being limited, the latter being reserved for consideration under the subject of Chronic Alcoholism.

It would seem to be a proper distinction if the term oinomania (or wine madness), could be made of general application, signifying all forms of appetite for liquor; while dipsomania (or drink madness) could be confined to the periodic drunkard exclusively. The dipsomaniacal activity exhibits itself then in periodic inebriety at intervals of longer or shorter duration; these intervals being complete and entirely free from any desire for alcoholic indulgence, while the feelings and appetites otherwise are in a healthy and natural state. These intervals are of different lengths in different persons, and, indeed, in the same person. In this respect the impulse to drink assumes some of the features of epilepsy—that great representative of all the varied forms of mental unsoundness and imperfection. As the crisis of epilepsy is sure to come sooner or later, so dipsomania will intrude itself in active form at certain periods of time. True, one or another consideration, either affective or rational, may retard the culmination of any neurotic stress at certain junctures of time and circumstance; but the determination of the morbid neurosis will in the end assert itself, and the victim of dipsomania will bow to the irresistible behest of his constitutional diathesis.

The question may be asked, if a mind can restrain itself for a time, cannot it forbear altogether? It is certain that the unquestionably insane can often, in the pursuit of some favorite purpose, refrain from the manifest exhibition of lunacy for a considerable period of time. The spectacle of a lunatic "stifling his disorder" is not uncommon in asylums. Of this fact, Haslam, Winslow, Hammond and others are witnesses. Yet to claim that such a fact implies a power to control insanity absolutely and at all times, is, in the face of experience and the sensible morbid degenerations of brain tissue, simply preposterous. Besides in dipsomania it must be remembered that the constitutional proclivity to intoxication exists in different persons in varying degrees of intensity. Hence in some instances, the power to refrain, not being wholly overborne by disease, can often be enforced. Yet the general truth seems to be this: Sometimes a temporary motive may come into operation, antagonistic to the dipsomaniacal diathesis of such transcendent force and majesty as to altogether master the constitutional proclivity for a short time. Of such motives, are oftentimes great domestic afflictions, as death, or insanity; or it may be some religious impression; or again, remorse and the contemplation of the ruin and dispair of a drunkard's home; and many other moral and emotional principles may interfere. But the trouble respecting permanent abstinence in those afflicted with a constitutional predisposition to alcoholic intemperance lies in the following principles of mental activity: It is an established doctrine of mental philosophy, that the mind is incapable in its sound state of resting under excessive emotions for any considerable length of time. It will be perceived that the motives for forbearance, indicated above, are all of a moral or emotional nature. Thus the principle of rhetoric is, that the ideas or emotions of the sublime, the terrible, and the pathetic, must be raised suddenly, and be quickly let down, trusting to the imagination for the fruits and consequences. Just so the dominant and superlative motives, which for a time antagonize the impulse to drink and overwhelm it, are, by the very violence of their own nature, temporary and evanescent. The passage of time assuages grief, and dulls the scruples of conscience, and sheds a pall of forgetfulness over the most violent emotions; at the same time the constitutional defect, calling for intoxication, remains, in most cases, the same through life. Local and temporary impressions and interests may, therefore, for a time, restrain the outburst of the constitutional predisposition, but they are powerless to prevent it in the end.

Objection has been made to the term impulse as applied to mental exhibition. It is true that this term presupposes the paramount morbid activity of the emotional nature in a certain direction, as considered in distinction from the reasoning faculties. It has been applied to many of the mental phenomena of hysteria, as well as of other neurotic displays. Still, Dr. Bucknill objects to the term, and remarks in his Lumleian lectures upon the responsibility of the insane mind: "This term, impulse, is a word which darkens knowledge, and its use seems wrong and misleading."

Coming from an authority which so readily exposes the fallacy of Lord Westbury in his claim that insanity is an independent state of mind requiring moral appliances, rather than a symptom of some internal pathological condition, this *dictum* of Dr. Bucknill seems singular. The doctor's criticism on his lordship's remarks are here applicable to his own declaration. "It is not," says Dr. Bucknill, "that medical men have imagined external things to be the indices of things unseen, but that they certainly are the indices of things unseen; and that all men, whether they be medical or legal, ignorant or expert, must, in questions of insanity, accept them as such, unless it can be shown that a state of mind can itself be seen." Alcoholic or dipsomaniacal impulse is an index of "things unseen." It is not a simple and independent property and power, subject to moral influences or to modifications through reason and evidence. It has for the chief condition of its activity and even existence, the precedent, the motive state, of unstable constitutional nerve predisposition. Of the existence of such a morbid diathesis, it is the index; while it also is, in a large sense, its instrument and partakes of its nature. "It is impossible to conceive," says Dr. J. Russell Reynolds, "of a sound and unsound mind existing at the same time in the body." Impulse is one of the symptoms of a profound constitutional taint, and as such it is a proper subject for consideration and remark.

"An unstable condition of the nervous centers allows action upon impulse, starting from sensation, which a better state of nerve nutrition would have enabled the individual to resist," is the language of Dr. Reynolds. The "unstable condition" of the "nerve centres" being present, some sensation in affinity with the character of the neurosis will tend to arouse the slumbering, or latent morbid force into sensible activity. Such a "sensation" may consist, practically, in the recurrence of some perception received in the past life, presented to the attention by the powers of imagination and memory. Or, in the case of the neurotic inebriate, it may be the sight of the signs and devices about drinking resorts which waylay him in his usual walks and avocations. Such sights are alluring to the enfeebled moral sentiments, and with their attendant ideas they awaken an impulse, which, without their intervention, might have remained dormant.

Pertinent to this subject are the remarks of Dr. Blaikie, of Edinburgh, who declares (*Princeton Review*, July, 1878): "Of all the hindrances to evangelization in Scotland, the most terrible is that presented by the traffic in strong drink. There is something actually pathetic in the fact that by the arrangements of the authorities, where virtue is frailest, the snares for its destruction are most thickly set; where people have most need to pray, and do pray 'lead us not into temptation,' the guardians of the public safety take care that at every street corner and at almost every second door, the 'temptation,' from which they have need to be delivered, shall present itself in its most enticing form. The transparent fallacies by which this is often justified, are discreditable to the heads and hearts alike of those who use them. They say that if people have the desire to drink it is all the same whether it is to be got within ten yards of their doors or twenty. Whereas, to many it is the perpetual sight of drink that kindles the desire for it. 'I could resist five public houses on the way to my home,' said a man lately, who knew the snare, 'but I cannot resist twenty.'" Dr. Blaikie does not fail to notice the grand rock basis of all this disaster. "The enormous extent to which the national revenue is derived from the sale of drinks gives the government of the country an interest in providing facilities for its consumption." An interest! A pecuniary interest, of course; an interest, the extent of which depends upon the amount of wreckage performed upon human character, human happiness, and upon personal and domestic peace and prosperity. For, the proportion of the liquor profits belonging to the government being substantially fixed by law, the extent of the government's interest in the liquor traffic is practically in the direct ratio of the degradation, want, woe and despair inflicted by alcohol upon the victims of hereditary disease.

Living upon the western frontier for some years, I there became acquainted with a "mountain man;" a person employed in the service of the American Fur Company. This man, when he came into the settlement, was a furious drunkard. While recovering from a debauch he told me that he had engaged in the business of trapping solely to be removed from the temptation to drink; that, when he was within the reach of liquor he could not resist the impulse to intoxication. He said he had no serious craving for alcohol while away in the mountains. He knew it could not be obtained and his feelings were not aroused by contemplating the subject of drink. The devices to which the inebriate resorts in order to cheat and overcome his appetite for liquor are innumerable, and they are known, as a rule, to himself only. But they demonstrate his weakness and the imbecility of his will in the direction of his appetite, while they also prove his anxiety to escape from the galling yoke of his morbid predisposition.

The fact is, in the spasmodic inebriate the affective or emotional sensibilities are so strong in relation to intoxication that little or no appeal is accorded to reason. The perceptive faculties are not denied a passive existence. But the power and activity of the neurotic feelings are so great that they occupy the entire field of action, and the reasoning faculties remain, with respect to the morbid predisposition, in a quiescent or consenting state.

When some sensation or recollection of past sensations arouses in the true dipsomaniac a sudden impulse to drink, it is overwhelming simply because the impulse thus aroused suffices to inaugurate a line of conduct in harmony with it without calling into activity the reflective powers, and reasoning on the subject does not take place. The neurotic propensity to drink when thus excited does not calmly scan the consequences and attendant circumstances; but in the form of an emotional impulse it controls the will, rendering it no longer free (as relates to the alcoholic appetite) and gives its own character to conduct. The ideas of Dr. Reynolds on this subject seem to be correct. "Every person" he remarks "has at times felt impelled to do or say something which he has avoided doing or saying by a moment's reflection." He also speaks of those "strange emotions" (strange because morbid) "which often conflict with thought," in regard to life and motive. (*Legal Tests of Insanity*, p. 17.) The class of emotions here alluded to is the legitimate production of a constitutional aptitude, insensible to sight or touch, but of positive qualities. This mental trait is as unerringly and decidedly operative as are those recondite organic principles which determine the shape of the nose, or the cast of the eye, or the "cowlick" in the hair, that distinguishes the personality and the constitutional peculiarities of certain families. It would be as sensible to give a dose of pills or apply a plaster with a view of changing those indelible indices of inherent physical family kinship as it would be to endeavor to effect a fundamental change in any other constitutional neurotic predisposition by analogous appliances. The same principle is common to both contingencies. The physical peculiarities denoting family or tribal kindred, betray likewise, to no small extent, a morbid neurotic diathesis, which is, however, for the time being, disguised, or held in bond, through the substitution of the characteristic "family mark."

It is not necessary, it seems to me, to enter into a prolonged discussion of the nature of impulse. The periodic inebriate drinks upon impulse, and often upon an impulse he is powerless to overcome. The question is raised, however: Can an impulse be so urgent that it cannot be conquered by will? In the light of the doctrines already advanced it would appear that impulse and will cannot come into opposition directly. The two mental principles operate upon entirely different planes and cannot in their perfect forms ever become antagonistic. Impulse has been described as the outcome of disease, fixed, perhaps, by the organizing processes of heredity through generations in some person, or some family, or tribe. Will, in its true character and right strength is the outcome of good health; all the powers and departments of mind which are precedent to the exhibition of will power, must be in excellent health and good working order. The circumstances and laws bearing upon impulse and giving rise to its exhibition are those of morbid characteristics, and they have no relation to the reflective faculties, or even to the normal sensibilities; neither are they directly amenable to the authority of reason or evidence. The laws which bear upon the regular and complete application of the will power are of a nature which demands a direct and intimate relationship between the initiation of conduct and the rational and emotional mental faculties, and they are always in subjection to reflection and judgment. Judgment, in truth, is immediately precedent to will.

This, however, is not saying but that impulse may be overcome, not, it is true, by will, but by removing the attention of the mind from the objective point of the impulse to some other point or subject, and thus, for at least a time, defeating the design (if the word is admissible) of some particular or specific impulse. Still, as heretofore intimated, the fact remains that when the impulse to drink is overcome, it is by the substitution, generally, of some stronger impulse, and not by an exertion of the will. Such, for instance, is the impulse derived from some great personal or domestic calamity, or from dread of the law, or from some other overpowering, but of necessity temporary emotional access. Of course, impulses are of various grades of intensity, and, in that aspect of the subject, much might be said as to the possibility of overcoming the stress derived from impulses of a wavering and indefinite strength. The reasoning, and the nature of the conclusions in this aspect of the case, are obvious and will not receive further attention.

Dr. Fordyce Baker in the Guiteau trial, defined irresistible impulse as follows: "Perversions of emotions to such a degree as to produce a conduct entirely at variance with the individual's former life, and to such a degree as to completely control will power, would constitute an irresistible impulse." It is the verdict of the best authorities, that impulse does not come from reason and judgment. "Good impulses," Maudsley asserts, "come from good feelings, bad impulses from bad feelings." It is the doctrine of Comte, that, "impulses to action, come, not from the understanding, but from the feelings." The former authority says furthermore, that "stress of function might be no more than normal to a powerful and well regulated mind, but would be fatal to the stability of an ill-regulated mind in which the feelings habitually oversway reason." These principles are directly applicable to the desire for intoxication which arises, not through reason, but through the feelings and emotions connected with and growing out of the dipsomaniacal diathesis. This neurosis in activity imposes an imbecility upon the will in the direction of a single, but powerful appetite. In the language of an eminent authority: "it would be as easy to argue away the temperament, as it would be to reason away the outcome of that temperament." This strong language would be strictly applicable, however, to those cases only where the morbid predisposition is of a settled and decided character; and the demands of the temperament are so urgent as to supercede the judgment and will.

I cannot forbear offering the suggestion, that if there is a large class of men who are the victims of an imbecility of the understanding and will, with reference to intoxication, the result of mental imperfection dependent upon a morbid temperament, and which operates to the signal injuries of self, and of society,—it matters not what may be the brightness of intellect, or the grandeur of achievement pertaining to such men in other respects,—the interposition of law and restraint, are as proper and necessary for their protection from the consequences of their special mental defect, as they are for the protection of imbecility in general from the wiles and snares of the selfish and unprincipled.

Well marked cases of periodic inebriety then are incapable of voluntarily refraining from the use of alcohol. The impulse to drink is irresistible. Science and facts concur in this. Reason is not questioned, and the feelings, the exaggerated emotions, rule the conduct. Will is absent, for there is no judgment, no alteratives of choice. There is simply impulse,—an incentive to conduct in obedience to a morbid neurotic force.

But most commonly the public are not of this opinion. They believe that the inebriate can, if the fancy pleases him, refrain at any time. This sentiment is largely shared in by the drunkard himself; and in fact this opinion, often expressed by him, gives plausibility to the idea so generally entertained, that drunkenness is always persisted in from a selfish and vicious indifference respecting the consequences of intoxication, rather than from some over-riding principle of necessity. It is very common to hear the inebriate declare that he can refrain when he chooses to do so; and this is literally true. But it is usually a long time before the neurotic drunkard discovers that, although he can refrain when he chooses, the time never comes when he is able to exercise the capacity of choice. His will is helpless in the presence of temptation and opportunity.

There are certain facts occasionally appearing in connection with the neurosis calling for intoxication, which at first glance seem to antagonize the idea that the alcoholic predisposition is ever absolutely irresistible. Chronic drunkards sometimes reform and never again indulge in liquors. How is it that the established habit of intemperance may be overcome, while the same habit in its earlier stages is irresistible? One answer is, that a law of heredity may become operative which accomplishes the fact. "No man knows of a certainty, his own character." No one can say with perfect confidence, what traits in mind and morals the process of evolution may bring to the surface as life progresses,—what characteristics, which, in their due season, may represent some peculiarities or idiosyncrasies of remote ancestry. Neurotic temperaments may change, one for another, sometimes in the same individual; so that it is possible for the predisposition to intoxication to be replaced by some less obtrusive neurosis. In that event, while the publicity and offensiveness of drunkenness disappear, it may not always be easy to recognize its successor, even though it is truly established in place. The clergyman heretofore noticed, whose epilepsy disappeared, was supposed to be freed from neurotic trouble; and although there is no reason to doubt that periods of neurotic trance attended with impaired consciousness were not infrequent with him, yet it was reserved for the accidental preservation of a written sermon, of which his memory gave him no information, to detect, finally, the fact that the epileptic neurosis was not extinct, but was changed into a neurosis of different form.

It is not impossible also, that the passage of time, introducing new and strong family traits, may eliminate at some certain stage in life, the predisposition to intoxication without, possibly, the introduction of another constitutional characteristic. Hence some strong moral or emotional impression, some religious or temperance revival for instance, may occur in a favorable conjunction of circumstances, and find a drunkard who, from mere force of habit, from simple automatonism, keeps up an intemperate course of life, and may overcome what has become simply a habit, no longer enforced by neurotic stress. Something of this kind may be occasionally seen in the strange recoveries of bed-ridden people who, at first suffering from real disease, have become in time the victims of imagination after the pathological conditions have departed. Thus, the sufferer from chronic rheumatism may be suddenly and mysteriously healed by the application of some pungent mental or bodily shock. And it is not uncommon to see the helpless hystero-cataleptic rise up, and go about her business upon the application of a powerful religious impression.

Again it sometimes happens that a person will take to hard drinking in middle life, who previously had no desire for intoxication. Here we perceive the establishment by neurotic interchange, of a diathesis which pertains to the family strain, but the development of which belongs to the constitutional changes inseparable from progressive existence.

These apparent exceptions only prove the rule, and they aid in establishing the proposition that the predisposition implanted in the constitution calling for intoxication, and for, in a subsidiary sense, the indulgence in alcoholic liquors, belongs to the great family of neuroses which are interchangeable, one with another.

It is therefore a fact that while habit is strong, a predisposition is stronger, and the family or tribal constitution is strongest of all.

"There are in fact," says G. Mortimer Granville, "two lines of inheritence, the direct and the oblique. There is a force operating to produce an animal of the class Homo, in obedience to the laws of the development of species. There is a force more confined which may be called the energy of family exclusiveness. There is also the individual entity which embodies the sum of the ancestral energies, so far as they have been materialized." The safety of the race lies in this, that the individual or family fault, when it reaches a certain condition, "dies out" in virtue of the stronger and permanent qualities of tribal or race constitution, that is, the stronger and direct inheritance, characterizing the species overcomes the oblique inheritance of morbid degeneration, by the extinction and removal of the individual, or the family tainted with it.

Insanity.

BY DR. JAS. G. KIERNAN, CHICAGO, ILL.

LECTURE V.—LYPEMANIA.

THE psychosis variously designated as lypemania, melancholia and dysthymia* was one of the earliest recognized. The well-known English classic, Burton's Anatomy of Melancholia, is an apt illustration both of the early recognition of this psychical condition and of the numerous conditions confused under it. Gradually, however, the idea of a condition of depression dominated all others, and to it alone the term melancholia was applied.

The term, however, is so widely known under such varied meanings, that lypemania is by far preferable as leading to less confusion. Dysthymia is certainly the best term, but to it there is the objection of newness, while lypemania has for some time been established. Lypemania is a functional or biochemical brain disorder, with abnormal psychical manifestations. Its foundation is a morbidly increased irritability of the sensitive side of the mind, presenting, as has been well said by Mendel,† a marked resemblance to neuralgia. In neuralgia there is marked physical pain; in lypemania marked mental pain.

CAUSES.

Lypemania may result from intense mental shock, from long anxiety, from sudden violence, from lactation, from cardiac disease, and from many conditions producing anæmia. It is more frequent during early manhood and womanhood; more frequent among brunettes than blondes; somewhat more frequent among females than males, although this has been by no means certainly demonstrated. How profound the influence of mental shock may be, is shown in a case which came under my observation. The brother of a young man of a very affectionate disposition was murdered. The brother was for a time somewhat stunned mentally, and with a vague sense of dread failed to realize what had occurred. He passed into a condition of stupor and so remained for a year.

SYMPTOMS.

This psychosis in its best marked type presents three stages not sharply demarcated, but sufficiently so for all practical purposes. The first stage, that of depression, is the one in which the physical symptoms first develop, and afterward the mental. The patients sleep badly. They are disinclined to active exercise. Calorification is badly performed; the skin becomes cold and pale; at times harsh; but is clammy and moist, as often the capillary circulation, especially of the extremities, is deficient. The pulse is often slow; sometimes rapid and feeble; there may be very marked cardiac changes in rhythm. The countenance bears an expression of fright or anxiety; the brows are knitted. There may be complaints of pain at the epigastrium.

The patient's mental tone is that of sadness, which pervades and tinges everything. His relations to the outside world are perverted by this dejection. He ignores the world and is concentrated in his own sorrows, or the mental impressions received from contact with the world are all painful. Early in the psychosis the patient perceives that a change has taken place in the affective portion of his mind. He dislikes enquiry as to himself, and resents such enquiries as affronts; some of which are remembered to form the basis of delusions later on. Everything as yet is of a negative nature; the patient is disinclined to do anything and allows himself to drift in this channel of mental depression. His will is not destroyed, but requires a strong external stimulant to rouse it. He prefers to lie in bed to active exercise, dislikes any mental exertion, and is very irresolute. He often sits mute for hours. At this stage the patient presents, as has been said by Tuke,* a form of insanity in which there is no disorder of the intellect, no delusion, no hallucination. It is one of the purest forms of affective or moral insanity. Concerning it Prichard says: "A considerable portion of the most striking instances of moral (affective) insanity are those in which a tendency to gloom or sorrow is a predominant feature. When natural to the individual and comparatively slight, it does not constitute madness. But there is a degree of this affection which certainly constitutes disease of the mind, and that disease exists without any illusion impressed on the understanding. The faculty of reason is not manifestly impaired, but a constant feeling of gloom and sadness clouds all the prospects of life." Guislain says that every day lypemanics are met with who do not exhibit any disorder in their ideas or judgment. "Lypemania is exclusively an exaggeration of the affective sentiments; it is an emotional disorder (gemüthskrankheit) in the full German sense of that term. It is a pathological emotion, a pathological sadness, or fear, or chagrin, or dread, and nothing further. The conceptive faculties are not weakened by it." Griesinger* says that lypemania may be free from all involvement of the intellectual faculties and may not pass beyond the stage of moral (affective) insanity. In the second stage, the melancholic or lypemaniac stage, properly so-called, the patient has lost sight of his relations to his surroundings and develops delusions accordingly. He is, in the more active form of melancholia, persecuted by enemies, The persons who enquired about his health had designs in so doing; they had given poison or were waiting for his death to secure his property. He refuses food for fear of poison. In the more negative state, to which attention has recently been called by Cotard,† the patient accuses himself. He is incapable, unworthy, guilty, damned. If the police should arrest him and he be sent to the scaffold he would have deserved it only too well. Hallucinations of hearing are infrequent as compared with those of sight. The patient, if the somatic symptoms predominate, is more or less hypochondriacal. He has no pulse, no stomach, no bowels. He is dead or will die soon. The general tone is that of depression His family, friends, the world, God himself, are all destroyed. He refuses food or neglects to eat; the first because he is unworthy or his stomach is gone, or because he can't pay for it; the second because he is unable to exert his will. For this reason, also, urination and defæcation are neglected. In the active form of this the patient is afraid of being shot or killed in some way. Hallucinations of all the senses may appear. Mendel‡ says that hallucinations of sight alone are infrequent. This does not correspond with my experience of the active form. The hypochondriacal variety may present hallucinations of general sensation. There are types which do not pass through these stages. Some remain in the first stage; in others the first stage becomes intensified and the patient passes into the condition known as melancholia attonita, the stupor of some authors. There are several types of lypemania. There is the active or agitated type, which may pass into a condition of frenzy; the so-called acute mania with depression. Here the patient is in constant fear of destruction. He is much in motion and complains greatly of his hallucinations.

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*Kahlbaum op cit.

†Kulenburg's Real Encyclopædie, Band viii, p. 665.

*Psychological Medicine, p. 221.

†Treatise on Insanity. p. 18.

‡Leçons Orales sur les Phrenopathies.

The following cases illustrate the frenzied type, both as to symptoms and its occasional ætiology:

Jno. G., æt. 50, admitted from the Tombs in a state of violent delirium, much resembling that of alcohol. The patient, who has a brother insane, had been perfectly well up to a week prior to admission at the Tombs, when he was attacked by rheumatism involving the knees, ankles and wrists, accompanied by a high fever. The third day after the appearance of the fever the patient was exceedingly delirious; home treatment was for a time pursued, but his violent attempts rendered transfer to an asylum necessary. On admission the patient had a temperature of 101°F. His knees, ankles and wrists were swollen. Psychically he was much agitated and presented hallucinations of taste, hearing and sight. The day after admission his temperature rose to 105°F., his agitation increased, he being with difficulty kept in bed, desiring to get up continually and drive off a legion of devils pursuing him; he refused to take egg nogg on the ground that it tasted and looked like blood. He was placed under the same treatment as the previous case. Within three days after this the patient became comparatively rational, and by the end of the second week the delirium had entirely disappeared. The patient soon began to improve physically and was finally discharged. Recovered four weeks after.

T. P., American, single; grandfather, uncle and brother died insane. Patient had, however, been in very good health up to about three months before admission, which occurred during the year 1874, when he was attacked by headache, for which, on the supposition of its being malarial, three grains of quinine were prescribed three times a day; after taking three doses of this the patient was seized by a violent attack of lypemaniac frenzy, with marked hallucinations of hearing of a depressing type, and considerable dimness of vision. These phenomena persisted for three months as the quinine was continued, and the patient treated with morphia subcutaneously. On admission to the asylum, which was at length rendered necessary, the patient was in the condition already described, and was placed under chloral and hyoscyamus as a hypnotic, and conium to quiet motor excitement. Under this treatment the patient was in fit condition to be discharged within six weeks after admission. He mani-

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*Mental Pathology and Therapeutics.
†Archives de Neurologie, September and November, 1882.
‡Op. cit.

fested, a day previous to discharge, some slight evidences of malaria, whereupon quinine was administered, which had the effect of bringing on a fresh attack of lypemaniac frenzy with the same symptoms as previously. The quinine was stopped and the same treatment as before resorted to, when the symptoms disappeared. The patient was discharged, fully recovered, four months after admission, but returned within a year in the same mental condition, from the same cause, to recover and relapse under the same circumstances.

There is the negative type, in which the patient is disinclined to active exertion, remains buried in his sorrows and is roused only by strong external stimulus. Finally, there is the stuperose or atonic type, in which the patient is completely engrossed in his depressing delusion, responding to no stimulus at all.

Mabille* has recently studied the physical features of these various types in detail. They are classed by him as follows: Lypemaniacs without suspension of locomotion (the active type); lypemaniacs with incomplete suspension of locomotion (the negative type); lypemaniacs with complete suspension of locomotion (the atonic type). He found that the temperature was a little above normal in the first type of cases, the pulse ninety-two, the respirations twenty In my experience the temperature has usually been lower, the pulse slower and the respirations fewer. In the second group the temperature was 98.4°F. at maximum to 97.5°F., pulse 64 and respirations 14—12. My experience would reduce all these lower. In the last type Mabille* found the temperature to be from 97.5°F. to 96.5°F., pulse 60 to 48 and respirations 13 to 9. I have found these to range between less elevated extremes. The arterial tension is usually found to be increased. There may be in all these cases marked cutaneous anæsthesia. The heart in lypemaniacs as has been pointed out by Boyle,* Calmeil,† Esquirol,‡ Mabille‖ and others, may be hypertrophied. This I believe is due, as Mabille has said, to the increased work the heart has to perform, owing to the increased arterial tension.

Mabille has called attention to another condition produced by lypemania, anæsthesia of the intestinal canal. This prevents assimilation, diminishes the patient's strength, causes a continuance of the sensation of hunger and increases the patient's affection.

The pupils in lypemania, especially in the second and third forms are dilated, in the third form markedly so.

DIFFERENTIAL DIAGNOSIS.

Lypemania may be confounded with primary or secondary monomania, or with the conditions of partial dementia produced by alcohol or occurring secondary to the primary forms of insanity or with progressive paresis. From the first it differs in the fact that the sadness is the primary condition whereas the monomaniac is sad because of being persecuted or because of his incarceration, etc. Such sadness intermits with joy. The delusions in melancholia are never systematized. The hallucinations, if existent, are always initial. From the types of dementia produced by alcohol the history demarcates it. The same is sufficient in the case of progressive paresis. Between the so-called primary dementia and lypemania attonita there is in externals a marked resemblance. The lypemaniac is engrossed in his delusion. The whole mental machinery of the dement has been overturned. As Tuke* says, lypemania attonita may be distinguished from acute or primary dementia by: First. The expression which in lypemania is markedly intense though immovable, in dementia is absent. Second. In lypemania the patient resists movement, eats and sleeps badly and requires feeding while the dement is just the opposite. Third. In lypemania the bodily condition is affected; the complexion is sallow, skin harsh and secretions deranged. The dement retains and even gains in plumpness. Fourth. On recovery the lypemaniac remembers his delusions during the abstracted state while this is a blank to the dement.

PROGNOSIS.

About sixty per cent. recover, dependent upon the patient's youth and rapidity of disease development. Many pass into secondary conditions of dementia, and many die from phthisis, pulmonary gangrene (frequent among the sitophobiacs or those who decline food), and from suicide.

DURATION.

From a few weeks to years. A large majority of cases run their course in from eight to ten months. The duration of the affection can be prolonged by inattention to some of the complications, or diminished accordingly.

COMPLICATIONS.

Some of these have been already alluded to. Phthisis and pulmonary gangrene are

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*Annales Medico-Psychologiques, Nov., 1879, July, 1880.
*†‡‖ Op. cit.

*Psychological Medicine.

not uncommon. Gangrene of the extremities from too deficient capillary circulation sometimes occurs. The menses are usually decreased or suspended. In males the sexual passion is in abeyance.

MEDICO-LEGAL RELATIONS.

Lypemaniacs of the active, frenzied or agitated type may commit homicide; or a mother in the first stage of the typical affection may commit suicide, previously killing her children to remove them from some danger. A father may murder his whole family to prevent them from starving to death; but the great criminal act of the lypemaniac is suicide. A lypemaniac is always in danger of suicide. The early morning was the period usually chosen by my lypemaniacs for attempts at suicide. Mendel has had very similar experience.

TREATMENT.

Should the patient be removed from home? He should at all events be removed from the surroundings under which his insanity developed. To do this it may in many cases become necessary to send him to an asylum; but where he can be transferred from his home under tender guardianship and can travel, this measure will not be found necessary. Cheerful surroundings and encouragements to engage in pursuits different from those usual to the patient, will often prove of value. Cold sponging helps the deficient capillary circulation. Morphia and cannabis Indica are pre-eminently indicated. Glonoine and amyl nitrite are especially useful in the atonic condition, and sometimes cut short the affection in the first stage. Tonics are of course indicated. When practicable, alcoholic stimulants are of great value. Conolly found sherry and egg to act well as a night-cap, and egg-nogg has very similar effects. Turpentine enemata often have good effects on the anæsthesia of the intestinal canal. Artificial feeding is often and pre-eminently indicated in these cases. The Davidson syringe, with a long tube, passed through a wooden gag with a large opening therein, is the best means of administering food. I have fed patients for months in this way. To prevent anæsthesia of the digestive tract occurring, the food should be given in small quantities frequently repeated. Egg-nogg alternated with beef-tea and egg is the best form of artificial food.

All somatic complications should be guarded against. Emmenagogues should be given to amenorrhœic females. The muscles of the chest walls should be faradised, and, where practicable, massage performed. Constant watchfulness is required in all cases of lypemania. The patient should be induced to labor where close surveillance is practicable. In the first stage, conversation and surroundings of an intelligent, stimulating nature produce a good effect on the patient.

PATHOLOGY.

The essential phenomenon of the early stages of lypemania is a partial cerebral ischæmia, subsequently becoming generalized. Autopsy results are, as might be expected, negative. The affection is a purely functional or bio-chemical one.

LECTURE VI—TRANSITORY FUROR.

Closely allied in many respects to the preceding psychosis is transitory furor, the so-called mania transitoria of the English and French, the transitorische tobsucht of the Germans. It is of great importance from a forensic standpoint. That there should be transitory mental affections, need scarcely surprise any one accustomed to think philosophically, especially when it is remembered that among the ordinary physical diseases there are many of this nature. A temporary diarrhœa, nay even (the nearest to a mental affection) a transitory cerebral congestion, are known and admitted by all; it is also generally admitted that these affections may occur without apparent prodromata, and disappear without leaving apparent sequelæ in persons healthy previous and subsequent to the attack. However, apply these conditions to mental affections, and claim that a transitory furor is a psychosis that might have been expected *a priori*, and numerous disclaimers quickly appear. This condition of things arises from the important medico-legal relations that this psychosis has, and more especially from the fact that, as a plea for non-responsibility, it has been much abused. In forensic psychiatry, from causes alluded to elsewhere, all sorts of extravagant opinions are made use of to force various mental conditions, morbid or not, into the procrustean bed of the psychosis that fits the particular case. No psychosis has been more abused in this particular than transitory furor, for under this category physicians claiming to be psychiatrical experts have placed conditions varying from primary monomania to morbid impulse, depravity, nay even fits of anger. From such procedures much confusion has occurred as to what this psychosis is, and its very existence has been denied.

Waiving, for the present, examination of the reasons why such denial has been made, the positive clinical evidence naturally presents itself. Von Krafft-Ebing,* who has written most clearly and convincingly of any of the authorities on this subject, claims that mania transitoria is a psychosis characterized by sudden invasion and cessation in a person of excitable temperament, attended by amnesia and followed by slumber. Starck,† Pick,‡ Essenbeck,‖ and L. Meyer,§ who have also made clinical investigations of the subject, agree substantially with Von Krafft-Ebing. Schwartzer[1] finds that the affection is an acute psychical one, arising in the form of a wild and blind spontaneous furor with entire absence of consciousness. Devergie[2] finds it to be a psychosis, without apparent cause or prodromata breaking out suddenly and ceasing with a crime. Bellard[3] regards it as a mental disease of a sudden and temporary character which carries the patient to automatic acts, not foreseen. Bell[4] describes it as a mental disease, suddenly coming on and as suddenly passing away in a hitherto sane individual. Griesinger,[5] Ray,[6] Maudsley,[7] Marc,[8] Henke,[9] Cazaulvieh,[10] and Spitzka,[11] regards it as an acute explosive, instantaneous temporary fleeting form of insanity. Castelnau,[12] Calmeil[13] and Tardieu,[14] say it is an instantaneous temporary fleeting mania, a mental disorder which bursts out suddenly and ceases with a crime. . Tuke,[15] Otto,[16] Hoffbauer[17] and Pritchard,[18] (in part) regard it as a mental disease, paroxysmal in character, of brief duration and sudden cessation. Clark,[19] Jarvis,[20] Woodward,[21] Mandon,[22] who are corroborated by Rush* and Esquirol,† regard the psychosis as an instantaneous temporary abeyance of judgment and reason, transient in character, occuring in individuals hitherto sane. Liman‡ says, that very transient attacks of furor may occur in the sane. Friedreich§ and Schurmayer,¶ make similiar remarks. To the existence of this form there have been some objections which are from their puerile character scarcely worthy of attention. Ordronaux‖ claims that in mania transitoria nature departs from her laws, since there are no prodromata or sequelæ, a cavil that is fully answered already. He objects also to the fact that most of the cases observed are of foreign origin, a nativistic argument that answers itself. He claims that superintendents seeing thousands of cases have yet to see a single case of mania transitoria. A little might be said here as to the clinical skill of these superintendents, since one of those cited recently assured a general paretic's friends that he would recover in three months; but the cavil is sufficiently answered by my experience already given. In reply to the rest of his objections, I cannot do better than quote the criticism on his article by Achille Foville pére:

"Here is a fantastic interpretation which we could scarcely have expected and which is hardly calculated to rank as a scientific production. Other than this, it is not to scientific procedures that the author has recourse, to combat the existence of moral insanity and mania transitoria; it is only by the aid of appeals thoroughly permeated with religious sentimentality, and drawn from the domain of literature, that the author declares moral insanity and mania transitoria false, absurd, ridiculous, and above all, unworthy of being received by the courts. To enable the reader to judge of the extra scientific method adopted by the author, we give the conclusion of his article: 'Lastly, we object to both (mania transitoria and moral insanity) because it is an attempt to set back the clock of the century, and to revert to supernaturalism and superstition in medicine. It is an attempt to curtain to the windows (*sic*) of that science whose religious duty it is to cast light and not mysticism around disease—to treat it not as a personal devil entirely, to be exorcised by philters and mummery, but rather as the perversion of a natural state struggling to regain its equilibrium.' Many physicians will be astonished to learn that, according to Dr Ordronaux, they are deceived in believing themselves in the pathway of modern progress and scientific advance, when in reality they are returning to the Dark Ages. But will the rhetoric of their American colleague induce them to retrace their footsteps?" Bucknill and Tuke make very similar comments.

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*Lehre von der Transitorischen Manie, Lehrbuch der Psychiatrie.

†Irrenfreund, 1871.

‡Prager Medicinischen Wochenscrift, IV. 1879.

‖Memorabilien Heilbron, XIV, 1879.

§Ueber Mania Transitoria.

[1] Die Transitorische Tobsucht.

[2] Annales d'hygiene publique, XLV, 1851.

[3] Les Alienés devant les cours d'Assise.

[4] Trial of Rogers, p. 157.

[5] Opcit.

[6] Medical Jurisprudence of Insanity.

[7] Pathology of Mind.

[8] De la Folie. etc., Tome, II, 511.

[9] Abhand. Gericht. Medicin.

[10] Monomanie Homicide.

[11] American Journal of Neurology and Psychiatry, 1882.

[12] Annales d' Hygiene Publique, x, 137.

[13] Annales Medico-Psychologiques, Tome XXIX.

[14] Ibid, 1872.

[15] Psychological Medicine.

[16] Cited by Marc.

[17] Ibid.

[18] Treatise on Insanity.

[19] Journal of Insanity.

[20] Ibid, volume 28.

[21] Ibid.

[22] Thése de Paris, 1862.

*Medical Enquiries and Observations.

†Maladies Mentales.

‡Casper's Gerichtlichen Medicin.

§Handbuch der Gerichtlichen Psychologie.

¶Gerichtlichen Medicin, § 522.

‖Journal of Insanity, vol. 29, p. 333 et seq.

Wharton and Stillé* claim:

First. That the majority of French and German alienists have not accepted this psychosis, but cite only Liman, "who says very transient attacks of furor may occur in the sane, but no distinctive species of insanity, as mania transitoria, so-called," which is granting all that is required, since the chief difference between ordinary acute insanities and transitory furor is the transient nature of the latter; Freidrich and Schurmayer, who admit the possibility of the existence of mania transitoria, but declare it difficult of recognition, and Le Grand du Saulle, whose statements are seriously modified by a case reported by him. In view of the fact that so few authorities are cited, and those few not decidedly opposed to mania transitoria, it must be admitted that Wharton and Stillé's statements are not very well borne out by the facts.

Second. That many of the cases of Dr. Jarvis† are imperfectly reported, and are certainly in the right as regards many of them, as Dr. Jarvis has thrown together cases of morbid impulse, epileptic insanity and simple anger, but certain of his cases are cases of transitory furor, and the reasoning of Wharton and Stillè fails to explain them away; for instance, for a hitherto well behaved, good tempered, sober woman to stab her husband, simply for asking for his supper on his return from work, is certainly a very peculiar act, assuming she was sane, as we are required to do by Wharton and Stillé's analysis of this case.

Third. That to recognize this psychosis would be to open the door to barbarism which strongly remind one of Ordronaux's rhodomontade; science endeavors to ascertain the truth, no matter what the consequence. If transitory furor exists, it must be recognized by forensic psychiatry, no matter what the consequences be; these can be guarded against afterwards. There can be no special pleading in science.

In the fourth place they object that the principle of the law that a man sane before an act and sane after it must be sane during it, is a principle of common sense. This is neither a principle of law nor of common sense.

Cook* admits the facts but claims that the reported cases are a mysterious something, which he calls cerebral epilepsy. That such a psychosis exists there can be no doubt. Were it not for the forensic bias which is imparted to psychiatry by lawyers and their medical toadies, there would be no question of its existence by any one. If it were any other variety of neurosis, no one would think of claiming for example, because it was rare that it must be non-existent. Such an absurd argument would be used nowhere else in medicine.

Out of the two thousand and odd cases of insanity, coming under my observation but two presented the form of this psychosis, one of these cases is as follows:

Case, A. B., American, clerk, abstinent, aged 24, single, father epileptic, grandfather died of apoplexy, was admited to asylum with a history of having been an inmate of the penitentiary for six months preceding his admission, and had been apparently well, mentally and physically, until the evening before admission, when he made a sudden, violent, unprovoked and indiscriminate attack on the keepers and convicts, at the supper table. Soon after this he was transferred to a cell and continued acutely excited for two hours, at length falling into a slumber which lasted an hour and a half. In the course of the next fourteen hours he was transferred to the asylum. On admission was slow, but perfectly coherent and rational, in speech. Gave a full, true account of all that happened that day up to the supper time, when the last thing he recollected was getting up to get some salt, but remembered no more till he found himself in the cell four hours after. He had been at work in the quarries in a hot July sun all day and had felt overcome by heat at night. His face and hands were somewhat turgid, but in two hours this condition had vanished. He strongly objected to being considered insane, but despite his remonstrances he was retained for a month when, no new phenomena appearing and the patient being perfectly sane, he was, at his urgent and repeated request, returned to the penitentiary to serve out his term. A year and a half ago, when last heard from, had no return of insanity.

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*Medical Jurisprudence, Vol. 1.

†He is apparently the only authority known to them.

*Medical and Surgical Reporter.

This case illustrates very well the clinical features of the disease.

CAUSES.

Schwartzer has found extremes of heat and cold, sudden changes in temperature, long exposure to excessive heat and intense mental application, produce transitory furor. My own two cases were due to the causes first mentioned. Krafft-Ebing and Brush* have had similar experience. Alcohol, sometimes, in predisposed individuals produces anlogous but impure states.

TREATMENT.

The patient as a rule does not require asylum treatment from the temporary nature of the affection. Conium and cold baths will be found of great value.

MEDICO-LEGAL RELATIONS.

It will be obvious from the case just described, that a crime might be committed by a patient during an attack of this kind, he being sane previous to it, and sane very soon after it, the intervening phenomena being such as would be ignored by the average ignorant policeman, or over-worked workhouse or prison physician.

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The Treatment of Syphilis.†

BY DR. MORSE STEWART, JR.

WHAT a wide range is comprised by this subject; how broad its scope; what organs, fluids and tissues escape its notice. The universal prevalence of this infection is the great promotor of many of the afflictions to mankind.

While the treatment of this disease is, as a rule, in many instances routine, there are still many cases which require great judgment in the selection of remedies, and the manner of their administration, precluding any absolute following of fixed rules. Again the ordinary routine of treatment may be in a large number of cases successful, in the hands of competent and incompetent practitioners, still we may have cases where the special discernment, discretion and judgment of the practitioner plays an important part in a successful combat with this devastator.

Syphilis, when properly treated, is not so dreaded a disease as is popularly supposed, and the prognosis of its incurability is rapidly giving way to a belief in its perfect eradication from the system in fit subjects, under proper treatment. When I say fit subjects, I mean strong, healthy and robust persons, tainted with no dyscrasia nor hereditary infliction, for in the former the power of resistance and elimination of the disease poison is great, and cures can be effected with the aid of very little medication. But on the other hand, when we meet the disease in the pale, anæmic, those of glandular and scrofulitic diathesis, poorly fed, illy nourished, where the powers of assimilation are far below par, the consummate skill of the practitioner is called into play to successfully combat and arrest its progress.

Here we not only have the ravages of the syphilis, which has found a favorable hot bed for its growth, but we must also contend with the dyscrasia and thus aid in preventing growth and development of this disease.

One of the great secrets of successful treatment is the ready coöperation of the patient with the physician in following out conscientiously all the details entrusted to his care, especially the pursuance of a well-regulated life. Confidence is to be inspired, and he or she properly instructed to a correct appreciation of the character of this malady, so that the willing interest of the patient will be a motive of resignation to the long and often times supposed unnecessary treatment.

By instilling a firm belief in a perfect cure, we may substitute hope in the place of despondency, the same having much to do with the attainment and maintenance of health and healthful thought. It is not my intention here to review the ancient, obscure or discarded treatments, but rather to deal with the more modern and approved, such as are of the most practical value and give the most satisfactory results.

Since the original outlining of this paper, which was commenced some twelve months ago, and then allowed to rest, awaiting a time when coercing duties should permit its completion, my views have undergone a considerable change, actuated not so much by research into the literature of this subject, as by my own personal observation of cases which have come under my care.

For the past ten months it has been my custom to keep a complete record of cases of a private nature, and for this purpose I have had prepared a series of numbered tablets (to be referred to in future time), upon which I weekly record the treatment and general condition of the patient. I have done so not alone for the purpose of personal investigation, but also that the patient may receive at my hands a just appreciation of his condition and of the remedies used or to be used.

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*American Journal of Insanity, July, 1882.

†Paper read before the Detroit Academy of Medicine.

Some months ago it was my custom to treat the initial sore by purely local means, and await the development of constitutional symptoms before inaugurating a general antisyphilitic treatment, but this choice has been largely amended through the instrumentality of several cases now in vivid remembrance.

It is not the province of this paper to enter into a discussion on the pathology or duality of chancre and chancroid; suffice it to say, that it is my firm belief where there exists a doubt concerning the character of the original sore much time can be saved and better results obtained by the conjoined use of topical measures and the general administration of mercury. It will be argued, perhaps, by many, that this course would tend to mask the disease, not to obliterate it, merely prolonging the incubation of the secondary manifestations, and thus render an absolute diagnosis for the time uncertain; or that when no secondary symptoms follow, that the sore thus treated was a simple one, not requiring constitutional remedies. I am no longer an adherent to these arguments, but maintain that by an early and thorough mercurial course we may cause a rapid disappearance of the chancre, if small; or if large, and much indurated, a very marked modification in its course. Furthermore, we may expect the possibility of arresting and even curing the disease in this stage. Let me here ask what harm can possibly accrue from this early use of mercury? I, for my part, fail to see any. Again, what benefit may we expect from it? My opinion is, that the preponderance of hope is on the side of its mitigating and even curing the disease, the condition of the patient being favorable. Mercury early not only shortens the ulcerative stage of the initial sore, but it wards off the outbreak of the disease and renders it more amenable to treatment. If then seeing no positive drawbacks to its early use, but on the contrary, an anticipation of a decided benefit in many cases, why should we not, in cases where we are in doubt, begin at once a mercurial course?

Expectancy, in my opinion, is not only harmful, but positively bad therapy. I can call to mind in illustration of the above, three cases where the sores would not heal without recourse to constitutional treatment. One, that of a lady who had been inoculated with chancre from her husband. The sore appeared on the labia minora, and was treated by various local measures for a period of four weeks, without any improvement in its condition. The patient was then placed upon one grain of blue mass, three times a day, until the gums were slightly touched, which occurred after thirteen pills had been taken. During this time I used a small pellet of absorbent cotton saturated with black wash and laid upon the sore, separating the labia. From the time the gums manifested the presence of mercury, improvement in the chancre took place, and sixteen days after the beginning of the mercurial treatment the sore had cicatrized, and the discharge from the vagina entirely ceased. About this time a suspicion of pregnancy of the patient dawned upon me, she having missed two of her monthlies and at the time troubled with morning sickness. After the first touching of the gums, the blue pill was discontinued and an interval of four days without medicine allowed. She was then placed upon pil. biniodide of mercury, gr. $\frac{1}{16}$, three times a day, and these kept up unceasingly for sixteen days. All this time the lady was apparently well, no signs of secondary showing themselves, so an interval of non-medication was allowed for ten days.

Again under the pretext of toning up her system and checking the vomiting, she consented to take fifty more of the biniodide pills. This was the last medicine taken, as she considered herself perfectly well and in need of no further medication. I was, however, anxious that she should be kept longer under mercurial treatment, not only for her own sake, but also for the child in utero, and so I informed her husband. He was, however, afraid lest her suspicions should be aroused if further medication were insisted on, and so I reluctantly gave up the case.

About two months after the discontinuance of treatment, and in her fifth month of pregnancy, I was called to attend her in premature labor, the same induced from no apparent cause, aside from the early syphilitic contagion, which in my mind was unmistakably the cause of the miscarriage. At this time there were no manifestations of syphilis about the lady, nor is there to this day, as I saw her only a couple of weeks back, when I prescribed for a trivial illness.

Now, to go back to the husband, the sore on his penis made its appearance about five weeks previous to that upon his wife's parts. His sore was treated locally by various of the remedies used for that purpose, but without any benefit. After having thus experimented for about a month, I placed him under the influence of pil. hydrargyri, gr. j, three times a day, and in the course of ten days the sore had healed, without, however, any touching of the gums, although some thirty pills had been taken.

A change to the pil. biniodide of mercury, gr. $\frac{1}{16}$, was then decided upon, and kept up three times a day for the space of three weeks, after which an intermission of ten days. The biniodide of mercury was again commenced and kept up for another three weeks, with a like intermission, and then again the same as before, when the patient of his own election, showing no signs of the disease, discontinued treatment.

About some three months after this he again came under my care for secondary symptoms. He had been very actively engaged in his business, which required much hard work, late hours and mental strain, with irregularity of meals, resulting in a general running down of the system, the same accounting for the fresh outbreak. He was at this time affected with mucous patches in the mouth and about the anus, due as I firmly believe to the general vitiated condition of his system. Treatment with the pil. biniodide of mercury, gr. $\frac{1}{16}$, was at once begun, and in the course of four weeks the symptoms had entirely subsided. Nevertheless, the pil. biniodide was kept up for three weeks at a time, sandwiched with a discontinuance of one week, until the expiration of three months, during which time no evidence of syphilis was observable.

Mercury was now discontinued, the syrup of the iodide of iron being substituted, and to this day the man is vigorous and hearty, entirely free from any manifestation of the disease.

The third case, that of a young lady, who consulted me for a venereal ulcer on the labia majora, the same resisting all local measures for a space of three weeks. The influence of blue pill, gr. j, three times a day, was tried, and in the course of nine days the ulcer had entirely cicatrized. Here there were no secondary manifestations, but the influence of pil biniodide gr. $\frac{1}{16}$ three times a day was kept up for two months as a safe and prophylactic measure. I have occasionally seen this lady since, but as yet have observed no constitutional disturbance.

Now, what I wish to illustrate by these three cases is, in the first place, the indolent natures of the ulcers and their great resistance to local treatment until supplemented with a general mercurial course. The sores healed then as if by magic, their character changing and in the space of a few days entire cicatrization taking place. What then could have accomplished this? Nothing in my mind but the systemic action of the mercury. In only one of these three cases did any secondary symptoms arise and that undoubtedly as the result of debility and overwork; for the wife, after miscarrying from syphilitic taint and taking but a comparatively small amount of mercury, does not to this day give any evidence of syphilis.

The presence of syphilis in this case was unmistakable, and the freedom of the lady from any subsequent lesions after the initial sore may be accounted for by her very excellent health and physique.

The rapid recovery of the husband from the secondary developments is undoubtedly due to the use of mercury prior to these manifestations.

In the last case referred to the sore would not have healed under local treatment alone, but the internal use of the mercury perfected cicatrization.

These three cases, to my thinking, argue conclusively the benefit accruing from an early mercurial treatment conjoined with proper local measures in all cases where there exists the vaguest doubt.

It is not my purpose to aver that all venereal ulcers, whether simple or syphilitic, will not heal without constitutional treatment, for I have seen many true chancres heal under purely local treatment alone. But in these, after a lapse of from five to seven weeks, constitutional disturbances arise which are not in many of the cases so easily controlled.

A conclusion might here be drawn, that after local remedies have been used unavailingly for ten days it is then imperative to institute a systematic mercurial course. It is also undoubtedly best in all cases of doubt as to the original sore not to rely on expectancy, but commence at once a vigorous mercurial course which in itself is safe and harmless, bereft of any positive drawbacks, aside from those of popular prejudice.

Having thus discussed the necessity of the early use of mercury without entering into details of its administration, it is now time to review the remedies for local use and the various hygienic and protective measures.

Before going into any details of treatment it will be well to glance at the first symptom observable to the patient; the one which in a vast majority of cases leads him to our doors is the initial sore or chancre.

These venereal sores should be treated on general principles and such agents are to be employed as the condition of the sore at the time indicates. In the first place the position of the chancre is to be noted, and if we find it on the cutaneous surface of the penis or scrotum, where it occurs in about one-sixth of the cases; the first point to be made is protection from friction or irritation caused by the clothing or body. This can be accomplished by applying a small pellet of absorbent cotton, about the size of a ten cent piece, over the ulcer and holding it in place by a small strip of adhesive plaster or winder, the whole being carried in a suspensory bandage. If, however, the ulcer is on the glans penis, or preputial folds in the male, or on the labial folds in the female the insertion of a small pellet of absorbent cotton will answer to take up the secretion and prevent friction with those parts of the body in close relation.

The frequency in changing the dressings is to be determined by the amount of the discharge, since the dressings should not be allowed to become soaked.

The penis should be supported well up in an appropriate bandage to prevent chafing and favor circulation of the part.

Protection having been thus briefly passed over, let us glance at the hygienic regulation of the affected part. In the first place ablutions and dressings are necessary at least twice a day, morning and evening; these are to be made by means of tepid water and a bunch of prepared lint or cotton which can be destroyed after using; soap not permissible. The part after having been cleansed in the manner described, is to be dried by softly pressing lint or absorbent cotton, rubbing and friction to be avoided, after which the ulcer is ready for the dressing. If, however, the chancre is held hidden by phymosis beneath the preputial folds, frequent cleansing by means of a long nozzle syringe filled with some astringent wash is necessary. The point of the syringe is to be inserted well into the pocket on each side of the penis, and the fluid forced in by means of the syringe. When thoroughly cleansed insufflations of iodoform and starch, equal parts, can be made by means of an insufflator provided with a valve on the tip.

The operation of cutting the prepuce to expose the sore should not be resorted to, for in the case of chancroid, the poison will become inoculated along the whole of the flesh wound. I am sorry to say that I have twice operated in this way, and in both instances have had good cause to lament my rashness.

If the œdema is great, hot poultices every two hours will afford great relief, the patient to be kept in the recumbent position, with the penis supported well up. Regarding the various applications resorted to, their names are legion, each having its admirers and friends. It is not my purpose here to discuss the merits or demerits of all the remedies advised in treating venereal ulcers, but simply confine myself to such as I have found to answer best in my own practice. To begin with, however, I will make a sweeping condemnation of all greasy or oily applications, except when cicatrization is well begun. In the first place, my preference is for powders of a desiccating, absorbent or alterative nature; as exampled by bismuth subnitrate, calomel, iodoform, oxide of zinc, biniodide of mercury, gr. i, or ferri subsulph., grs. x, starch ʒ ij. These I apply by means of a stub camel's hair brush, which is intruded into the mass of the powders, so as to take up a sufficient quantity, and then by a sharp tap on the brush the same can be distributed thoroughly over the surface of the ulcer. Iodoform, in my opinion, is the most useful of the powders thus enumerated, as it is antiseptic, alterative and rapidly promotes healthy granulations upon a sluggish sore. Sometimes after using these powders, especially those made up with starch, we will have a scab crust form over the ulcerating surface, and unless this crust be carefully removed by washing, we will find a closed pocket, in which matter will be pent up and thus retard a curative action. Gentle sponging, however, will accomplish the removal of this crust, and then after a thorough cleansing a like application can be repeated. Stimulating lotions are also of service; when the same are required, the following may be used with advantage:

℞ Zinci chloridi, grs. ½–i.
Aq., ℥ i.
℞ Tr. iodinii, ʒ ¼–½.
Aq., ℥ i.
℞ Argenti nitratis, grs. ij–v.
Aq., ℥ i.
℞ Zinci sulph., grs. i–iij.
Aq., ℥ i.
℞ Cupri. sulph., grs. ij–v.
Aq., ℥ i.

Or the following astringent lotions:

℞ Pulv. aluminis, grs. x–ʒ ss.
Aq., ℥ i.

℞ Tr. ferri chlor., ʒ ¼–i.
Aq., ℥ i.
℞ Tr. Myrrhæ, ʒ ½–ij.
Aq., ℥ i.

and the infusions of hydrastis, coptis or sage.

As alterative lotions, the old-fashioned black or yellow washes are as useful as any, especially where the sores are large and indolent.

Antiseptic lotions are made up from carbolic acid, permanganate of potassium, boracic or benzoic acids. Caustics are used by some for the purpose of destroying the virulency of the sore; but they are then only to be employed when the physician is satisfied of the chancroidal poison, the sores not being large or multiple. In syphilis the caustic treatment will be powerless in destroying the virulency of the sore, as the ulcer is but a local expression of absorption. I have seen several venereal ulcers which, when left alone with nothing but cleanliness, have healed, and others which by the injudicious use of caustics have been kept irritable and spreading. In conditions where the ulcer is indolent and sluggish, caustics may be applied with sufficient frequency to insure the substitutionof a healthy action for the morbid condition.

Excision of the chancre is needless, painful, illogical and powerless to abort the secondary manifestations, since the initial sore is not the first expression of absorption, but the action of the poison at the point of inoculation. This procedure is justly condemned by a vast majority of the profession, its clinical results being negative; nor is there any logical reason to hope of its attenuating the syphilitic virus.

The above topical remedies and procedures will in a vast majority of cases cure the initial sore, so that a further parade of additional formulæ and remedies will tend to an unnecessary prolongation of this division of my paper.

Proceedings of Societies.

Proceedings of the Wayne County Medical Society.

Detroit, January 4, 1883.

A STATED meeting of the Wayne County Medical Society was held this evening with the president, Wm. Brodie, M. D., in the chair.

Dr. Yemans read a paper on neurosis of the skin.

Dr. Wyman asked the essayist if he thought these neuroses due to changes taking place in the nervous system, and if any experiments had been made by section of nerves to show their influence in the formation of these vesicles on the application of cutaneous irritation.

Dr. Eaton has found oleaginous dressings act as irritants in these cases. He prefers dry applications and constitutional treatment.

Dr Lundy is interested in herpes as connected with the eye. He has always regarded it a neurotic trouble and treated it as such with good results. Good hygienic surroundings had a marked influence on this disease. Several illustrative cases were cited.

Dr. Mulheron: What influence has malaria on skin affections?

Dr. Yemans: Considerable, especially in zoster.

Dr. Wyman has noticed periodicity in zoster.

Dr. Brodie could not agree with Dr. Yemans in making a difference between herpes and zoster, and did not take kindly to the theory of zoster being a neurosis.

H. G. McGrew, Sec. *pro tem.*

Detroit, January 18, 1883.

The Wayne County Medical Society convened this evening at its rooms with Wm. Brodie, M. D., the president, in the chair.

Dr. Clarke read the following paper on vicarious menstruation:

The important relations which the ovarian and uterine organs hold in the animal economy have been apparent to scientific investigators from the earliest times and as a consequence our medical literature is prolific of results of the researches of both ancient and modern writers on diseases peculiar to women, but strange to say, among the vast amount of information obtainable on these subjects, the topic of vicarious or ectrotic menstruation is either overlooked or but incidentally alluded to. This negligence may have arisen from a doubt as to the true nature of the discharge or an appreciation of the unimportance of the phenomenon when present.

Hippocrates makes no direct allusion to it and until the time of Aretæus the Cappadocian we find no intelligent reference to the affection.

He has, however, some definite ideas on the subject and says referring to hæmatemesis in amenorrhœa: "This mode of bringing up blood is common with women who have not their monthly purgation, and appears at the period of the purgation and stops during intervals between them, and if the woman is not cured the discharge upwards of blood will result for many periods and also in certain cases the vessels burst from fullness."

He appears to have no doubt as to the existence of this form of menstruation under certain conditions of the system, a belief shared in by writers referring to it until quite recently.

Huston mentions it as "a curious derivation from normal menstruation, a provision for and in some degree mitigating the constitutional effects of suppressed menstruation, by substituting a similar discharge from some other part."

Trousseau says "all physiological discharges of blood take place from mucous membranes and they lead to external outlets."

Barnes, after quoting him, follows with this conclusion: "It will generally happen, then, when the mucous membrane of the uterus is not disposed to execute its function, some other mucous membrane will supplant it," and continuing, asserts still further that "the skin is occasionally the seat of vicarious menstrual hæmorrhages."

This form is referred to in Ziemssen as "the phenomenon of stigmatization in which the superstitious see a recurrence of the wounds and bleeding of Christ."

It is due to a bladder-like elevation of the epithelium, with serum in the bullæ, at first clear but afterwards becomes of a bloody color, and then, after a flattening of the skin, a loss of blood takes place, often quite abundant.

Hartshorne refers incidentally to the question, leaving a doubt on the mind as to his opinion regarding it

Niemeyer, brushing aside the accepted theories and conclusions of the older writers, says: "The theory that the omission of an habitual menstruation can give rise to a general plethora, must seem very rash; such bleeding might properly be called vicarious, so long as it was supposed that the menstrual flow had the effect of evacuating effete matters from the system. With our present conception it is difficult to find a reason for vicarious hæmorrhage, for, accepting the result of recent researches, the menstrual flow does not proceed from engorgement alone, but is the effect of a fatty degeneration and exfoliation of the uterine mucous membrane."

In order to have this position tenable, it appears to me necessary to accept the "nudation theory" of menstruation, which at present is *sub judice.*

Following Niemeyer in his unbelief in the existence of vicarious menstruation, comes Galabin, who in a recent work on "Diseases of Women," referring to various hæmorrhages during amenorrhœa, says: "It is very rarely that the vicarious hæmorrhages have any monthly periodicity, but they indicate an excess of vascular pressure which does not find its natural relief."

The ætiology of the flow is obscure, but the result may be traced in many cases through the stages of menorrhagia, chlorosis and amenorrhœa; some have attributed it to malaria; (Dr. Taylor, Med. Lec., 1878,) to "a close relation to the active, nervous and circulatory excitement accompanying ovulation, under which influence bleeding may take place at points predisposed"; "to a collateral determination of blood to other organs from which hæmorrhages may take place, which are to be regarded as vicarious for the deficient menstruation, and to a congestion by which inflammation of the lungs, liver, bowels, kidneys, bladder, fibrous tissues, and a condition of the nervous centres induced by a suppression of the normal function, producing this 'quasi physiological phenomenon.' "

Notwithstanding the theories of several keen and rudite observers, we are forced to the conclusion that vicarious menstruation is an entity, and that the bulk of medical opinion of the present day favors this hypothesis; that it is preceded by the menstrual molimen, is frequently periodic, is followed by a sense of relief to the system, characteristic of the normal menstrual epoch, and that it may occur from almost any portion of the female economy. The following cases appear to justify these conclusions:

A case is cited by Sir T. Watson (*Prin. and Pract. Phisic.*) where vicarious menstruation recurred regularly, ceased with pregnancy and lactation and returned after weaning.

Dr. Boring (*N. Y. Jour. of Med.*, 1856) mentions a case from which the flux occurred from an ulcer on the leg. Amputation was resorted to in consequence of the condition of the limb, when the discharge appeared periodically at the extremity of the stump, confined in membranous sacs, which the patient herself opened monthly with a lancet.

A curious case is mentioned in the *London Lancet* (Vol. I., 85, 1852) where the flow consisted in the ejection of blood casts from the stomach, intestines, bladder and uterus.

In the transactions of the New York Academy of Medicine, published in the *Medical Record*, 1878, a number of cases are reported.

Dr. Salvator Caro, one menstruation from the gums.

Dr. Taylor one in which it occurred periodically from a patch on the head and arm. Dr. Hubbard one from the lungs and Dr. Church one from the umbilicus monthly.

In the *Michigan Medical News*, 1878, Prof. McLean reports a case where menstruation had never occurred normally, but had taken place through a tumor of the jaw for a period of two years. He removed the tumor and reported the result in *Leonard's Illustrated Journal*, 1879, in which we find that for a period of three months after the operation no hemorrhage occurred, after which perfectly normal menstruation ensued, which has continued up to date of writing. The following case came under my supervision in June, 1879:

Miss A. P., æt. 22 years; light complexion, sanguine temperament; father living, mother dead of dropsy, one sister and brother living, one brother dead of phthisis. Found patient chlorotic and suffering from disordered menstruation with dysmenorrhœa. I used systemic treatment during the succeeding four months with apparent improvement of her condition physically, although an entire cessation of the catamenia took place; mentally this condition of the uterine system produced peculiar effects, probably by sympathy with the brain and nervous system, she becoming irritable, easily excited, hysterical and given over to morbid imaginations. At times she would be taciturn and a victim of melancholia. This state continued for a time, when in March, 1880, I was summoned hastily to find her subject to a severe attack of hæmoptysis, which, from the absence of pulmonary indications, I diagnosed as vicarious. The recurrence of the hæmorrhage on two or three monthly periods following—taken in connection with the history of phthisis in the family—caused the friends to ask for consultation. I called in Dr. Brodie who confirmed my diagnosis, the correctness of which is undoubtedly assured from subsequent history. Since then she has been under my treatment and with the exception of hysterical attacks corresponding to the monthly periods is in good health.

Normal menstruation has not as yet reappeared, still she has gained in weight, is no longer chlorotic, and has recovered from the nervous depression so marked before the institution of the vicarious flow.

Since the first hæmorrhage the lungs have been equal to the emergency, performing apparently the uterine functions.

Accepting the conclusions educed from experience and the published evidence of others, I am of the opinion that the "nudation" or any "recent theory" which is incompatible with the existence of this phenomenon, will be accepted *cum grano salis*, and that the profession require something stronger than conclusions drawn from hypothetical premises before they relinquish theories as venerable as that of vicarious menstruation.

Dr. Gustin gave a history of case in which a periodical hemorrhage took place from the throat. Menstruation had been established and regular for 3 or 4 years, when, in consequence of a cold, the patient passed over one or two periods, after which a periodical hæmorrhage from the throat occurred and continued for six months. The patient recovered, but after a time suffered from a second attack of a similar character which continued for seven months. She subsequently married, bore children and is at present in good health.

Dr. Gray doubts the occurrence of vicarious menstruation.

Dr. Klein agreed with Dr. Gray in his doubt, and related the history of a case of hæmorrhoids in which hæmorrhage from the hæmorrhoidal tumor took the place of the menstrual flow. The hæmorrhage was the consequence of the local periodical congestion, which it also relieved.

Dr Brodie believed in the occurrence of vicarious menstruation. Hæmorrhage may take place from different parts of the body. Naturally the flow is designed to relieve the congestion of the ovaries and associate organs.

Dr. Klein asked, is the discharge when ectropic the same in constituents as when normal?

Dr. Clark: Yes, menstrual blood differs only in being mixed with uterine and vaginal secretions.

Dr. Klein: Was the bleeding from the lungs in Dr. Clark's case, the cause of the stoppage of the menstrual discharge or the result?

Dr. Brodie: It might have been the cause if it had occurred but once, but could not have been when it became regular.

Dr. Eaton asked if the menstrual flow could be prevented by bleeding the woman just before the time of its expected appearance.

Dr. Brodie believed not.

Dr. Gustin thought that if a woman should be bled to faintness, at such a time she would not flow.

Dr. Eaton reported cases of congestions of lungs, throat and schneiderian membrane caused by the sudden and severe changes in weather.

Dr. Gustin reported one case of diphtheria and several cases of mild "sore throat."

Dr. Clark reported cases of rheumatism, neuralgia and scarlatina.

Dr. Yemans reported a case of scarlet fever without the eruption, presenting all the symptoms of the disease with the exception of the rash. The doctor was requested to write a history of the case.

Dr. Clark reported one case of measles. No spreading.

Dr. Brodie reported one case, but knew of no others. He reported two cases of hemiplegia.

C. A. Devendorf,
Secretary pro tem.

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Meeting of Detroit Academy of Medicine.

Tuesday Evening, Dec. 19, 1882.

The Academy met at the office of Dr. Wyman, Dr. Bradley presiding.

WRITTEN COMMUNICATIONS.

The secretary read a paper on the recently revised U. S. Pharmacopœia.

Dr. Yemans: Does the Pharmacopœia use the new chemical formulæ?

Dr. Lyons: Formulas are given in both the old and the new notation.

Dr. Wyman: The doctor spoke disparagingly of preparations of conium. I have myself made a good deal of use of this remedy, and have not found it so valueless as is generally represented.

Dr. Lyons: I did not mean to say that the solid extract of conium is never good, but that the volatile alkaloid is so easily lost or destroyed in making this extract that it is better to employ a fluid extract. In any case the seeds alone should be used as at present directed by the pharmacopœia, the leaves being so often good for nothing.

Dr. Connor: In regard to the publishing of this volume, there are some facts which have not been alluded to. The publication was awarded to Wm. Wood & Co., although there were several competing bids at a lower figure. The difference, in fact, amounts to a bonus of $20,000 bestowed gratuitously upon a firm in which some members of the committee may have felt a warm personal interest. The result is inferior workmanship in the volume issued, together with a price which would be large for the best of work.

Dr. Gilbert: In connection with the subject of changes in the pharmacopœia, there may arise interesting medico-legal questions. A prescription may be written with the old officinal preparation in view, while the apothecary may dispense the new, or *vice versa*. Where would the responsibility rest?

Dr. Connor: The pharmacopœia is the law; it only is authoritative.

Dr. Gilbert: The changes that have been made are for the most part in the direction of weaker preparations. Is this merely that any error that may result from the change may be on the side of safety, or is it a recognition of the growing tendency to diminish the size, but increase the frequency of doses of any drug?

Dr. Bradley: The next question is, will the druggist provide himself with the new pharmacopœia? Can we expect that if we modify our prescriptions with reference to changes in this standard, that our intent shall be carried into effect when the prescription is presented to be filled?

Dr. Wyman: Perhaps the time has come for physicians more generally to dispense their own medicines. Manufacturers are supplying to a large extent the preparations used by retail druggists. Why should not the physician avail himself of the same source of supply, and render himself independent of incompetent druggists' clerks?

Adjourned.

December 26, 1882.

The Academy met at the office of Dr. Cleland, Dr. Bradley in the chair.

MISCELLANEOUS BUSINESS.

Dr. Cleland read a letter from Dr. D. S. Clark, Rockford, Ill., enclosing a circular which has been sent to the physicians of Illinois remonstrating against the attempts made by health boards to compel physicians without compensation to collect statistics for the state. The grievances complained of are the same as those which have recently caused a rupture in this city between physicians and the health board, or its representative.

Dr. Carrier: It seems to me a mistake on the part of boards of health that they do not take pains to secure the support of the medical fraternity, who have been most influential in calling them into existence, and who are more interested than any other class in the community in their continuance and efficiency. Without such support it seems almost certain that the people will not long be willing to be taxed to sustain them.

Dr. Morse Stewart read a paper on the treatment of syphilis in its (primary) local manifestations.

Dr. Yemans: I think the advisability of using mercury before the appearance of secondary symptoms is very doubtful. The effect may even be prejudicial if the patient has merely a chancroid.

The doctor says excision of the chancre is needless, illogical, etc. It may be so if the pathology assumed is the true one. If, however, it is a fact that the chancre is the initial lesion, from which the system is in danger of becoming infected, it seems reasonable to resort to the knife.

There are three principle theories of the pathology of syphilis. The first is that of a specific virus, held by Dr. Hutchinson. The second is that held by Dr. Keyes, which regards the phenomena of the disease as dependent on an anæmic condition, destruction of the blood corpuscles being the characteristic lesion. The third is that of Dr. Otis, making the disease depend upon the blocking up of the lymph channels with material accumulated from the retrograde metamorphosis of tissues.

The Doctor distinctly told us in the outset that he would not meddle with questions of pathology, but he has found it impossible to discuss the treatment of the disease rationally without tacitly assuming some theory of its pathology. If the views of Dr. Otis are accepted, I think we should arrive at a different conclusion from that just stated in regard to the effect of excision of the chancre.

Dr. Wyman: One practical point alluded to in the paper I have had some experience with, viz., the treatment of a chancroid which is concealed by the preputial fold. The Doctor has laid it down as a rule that an incision should not be made. I have found on the contrary that such an incision often facilitates the treatment. If the patients are sufficiently intelligent and tractable to carry out instructions, the Doctor's plan is a good one; but we often find patients who are of a very low grade of intelligence, and who have no conception of what cleanliness means, and with such I have found it generally best to make pretty free use of the scissors.

Dr. Connor: With reference to the constitutional treatment of a doubtful sore by mercurials, one point is to be borne in mind. Many patients have a peculiar dread of syphilis. If they suspect from any remark you let drop, or from the character of your prescriptions, that you think their disease is syphilis, they are thrown into such a condition of anxiety and alarm that recovery even from a slight ailment is almost impossible. They watch their symptoms with nervous dread, and will probably consult one and another physician, getting no benefit from any. With this class of patients, at least, it is necessary to be very discrete. In my own limited experience in the treatment of this disease, I have not found it necessary to resort to mercurials in the early stage. I believe that cleanliness and nutritious food will do all for these patients that medication can accomplish. Of course a question of therapeutics can be decided only by appeal to clinical experience. Physiology and pathology are good as far as they go, and are helpful, but can not be listened to as against the clear evidence of practical experience. In regard to the question of excision, it seems to me that it matters not what views be adopted of the pathology of chancre. In any case the chancre cannot be the primary lesion. Even on Dr. Otis' hypothesis, the system is already infected by the time induration appears.

Dr. Noyes: The doctor seems to regard the giving of mercury as a very trivial matter. One would think from what he says that you could almost feed your patient upon it. I can hardly agree with him in this. Even in small divided doses mercury is a powerful agent, and if not beneficial to the patient can hardly fail to be injurious.

Dr. Lyons: Among the remedies mentioned was the oxide of zinc. I would like to ask the doctor whether he has used the pure oleate of zinc. It is in the form of a fine white powder of an unctious feel, like powdered soapstone and is said to have effects similar to those of other zinc preparations.

Dr. Stewart: I have never used it.

PATHOLOGICAL SPECIMENS.

Dr. Bradley exhibited a portion of a degenerated ovum, hydatidiform.

The patient was an English woman four years married. Has one child two and one-half years old; has miscarried twice before. In this instance she thought she was in about the fourth month of pregnancy. Had been flowing several weeks. The cysts, as may be seen, are very small, few of them larger than a small currant. I find that Dr. Grayling Hewitt regards this condition as one following the death of the fœtus. Virchow, on the other hand, regards it as the cause of the death of the embryo. Playfair adopts an intermediate opinion, viz., that the degeneration may sometimes precede or sometimes follow death. There was no sign of syphilis about the patient.

Dr Cleland exhibited a carcinomatous tumor from the pylorus of an old man long janitor of the Board of Trade building. The character of the disease was not suspected until within a few weeks of the patient's death, but it is believed that it had its origin when the patient was but 11 years old. When I saw the patient he had been unable to retain solid food for months. He had not been under treatment and had been regularly at his post of duty. The case is remarkable for its long continuance and for the uncommon endurance of the patient.

Dr. Wyman: What was the condition of neighboring organs?

Dr. Cleland: There were adhesions.

Dr. Wyman: Did the patient stoop.

Dr. Yemans: He did:

Dr. Wyman: Authors speak of this as a valuable diagnostic sign of disease of the pylorus. Adjourned.

JUDSON BRADLEY, President.

A B. LYONS, Secretary.

[Reported for the DETROIT LANCET by Dr. Jas. G. Kiernan, Chicago.]

Chicago Northwestern Society.

At the January 22d meeting of the Chicago Medical Society—Dr. J. H. Hollister, presiding, L. H. Montgomery, secretary—Dr. J. G. Kiernan read a paper on "An Historical Case of Gouty Insanity." He said:

"While, as Ray* remarks, the insanity of a prince is of no more importance, medically, than the insanity of a peasant, still the insanity of the latter concerns his immediate relatives only, while the insanity of the former may affect the welfare of great nations, which was especially the case with the subject of his paper. Gouty insanity had been much studied in England and France because of the relative frequency of gout in those places.

Before proceeding to the discussion of the subject proper, Dr. Kiernan gave a brief review of the literature of gout. Sydenham† says: "The body is not the only sufferer, and the dependent position of the gouty patient is not his worst misfortune. The mind suffers with the body, and which suffers most it is hard to say. So much do the mind and the reason lose energy, as energy is lost by the body, so susceptible and vacillating is the temper, such a trouble is a patient to others as well as himself, that a fit of gout is a fit of bad temper. To fear anxiety and the other passions, the gouty patient is a continual victim, whilst as the disease departs, the mind regains tranquility." Savage* reports a case in which delusions of persecution and suicidal attempts alternated with gout. Berthuz† claims: 1. If gout have a marked action on the mind and a special predilection for the nerves, it may in predisposed cases originate every kind of neurosis, especially the optic neuroses. 2. The psycho-neuroses dependent on the gouty diathesis are frequently metastatic and alternating, but sometimes predispose to a latent or larval resania. 3. Gouty insanity is often associated with anomalous gout. 4. Sometimes the gouty symptoms become lost in the insanity which then becomes incurable. 5. Gouty insanity has an established place along side of dartrous, syphilitic and rheumatic insanity.

The single instance of this form of insanity coming under Dr. Kiernan's observation was the descendent of fox hunting Irish squireens. He was markedly good humored, as a rule. He had at irregular intervals attacks of gout. The occasion on which I saw him, he was wildly excited and was dashing around the room, smashing articles of furniture and seeking to escape from enemies. He had been in his usual health up to within three weeks previous to my visit, when he was attacked by gout. While suffering from this, and with his foot encased in a shoe open as far as the toes were concerned, he incautiously went out in a rain storm. On his return home the swelling of the joint had disappeared, but he was irritable, peevish and loudly complained of the noisy streets and his unquiet children, one of whom he beat severely, contrary to his usual custom. From the description given by his wife he soon developed casual hallucinations and then passed into the condition in which Dr. Kiernan saw him. Under the application of warm fomentations to the lower extremities and the internal use of colchicum, conium and potassium iodide, the excitement disappeared and the patient regained his usual good humor.

Without conceding the abstract propriety of classifying insanity for clinical purpose by its ætiology alone, Dr. Kiernan had adopted the term gouty insanity to indicate the origin of an attack of insanity in one of England's greatest statesmen. Great as was the fame of William Pitt the elder, Dr. Kiernan was unacquainted with any medical account of the insanity which attacked him soon after the repeal of the Stamp Act. The features of Pitt's insanity had been described by Macaulay* in his usual pellucid style. Pitt's insanity led him to fall into the snares of that cunning old primary monomaniac George III. Pitt, at this time was as eloquent as ever, and no one suspected him of mental alienation, but his habits became more and more eccentric. A horror of loud sounds grew upon him. Though the most affectionate of fathers, he could not bear the voice of his children. He laid out great sums buying houses adjacent to his own at Hayes, merely that he might have no neighbors to disturb him with their noise. He then sold Hayes and took a villa at Hampstead where he began to purchase houses right and left. In expense he vied with the wealthiest Indian nabobs. At Burton-Pynsent he suddenly ordered a large extent of ground to be planted with cedars which had to be collected from all over England and in accordance with Pitt's orders were planted by torchlight. No man could be more abstemious than Pitt, yet, at this time, the profusion of his kitchen was the wonder of epicures. Dinners were always dressing as he had a capricious and fanciful appetite, and when he felt inclined to eat every thing must be on the table. As Macaulay remarks in the true spirit of the alienist, setting an example which could be followed with advantage by his brother members of the legal profession, other circumstances could be detailed which separately and singly were of little moment but combined and contrasted with surrounding circumstances and with Pitt's previous and after character justified a diagnosis of insanity. While in this fit of planting. Pitt was summoned to form an administration and his notes to his colleagues *in posse*, were such as even the despot Louis XIV, would have deemed unfit for use in correspondence with a French nobleman.

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*Mental Pathology, Insanity of George III.

†Opera omnia.

*Bucknill and Tuke, Psychological Medicine.

†Annales Medico-Psychologiques, 1869.

The ministry then formed by Pitt displayed anything but sagacity. In it bitter personal and party enemies were so mingled that they could not but conflict with each other. Pitt, then, with equal abandonment of his usual sagacity and in somewhat of a contrast with the course of the old English families from which he sprung, accepted an earldom, missing, for the time being, his popularity in England and influence on the continent. Up to the time of the appearance of the psychical phenomena already described Pitt had been tormented by hereditary gout. This disease was suppressed by remedies, whereupon the mental symptoms already detailed suddenly appeared. He had become melancholy, fanciful and irritable. The state of public affairs was embarrassing; his colleagues were constantly disputing; his opponents were clamoring against him, and he, the clear-headed statesman, the man of whom Frederick the Great said: "England has been long in labor, but she has brought forth a man," said he could be saved from all these difficulties only by repurchasing the house he had so hastily and capriciously sold. This was accomplished and he was somewhat easier, but when business was mentioned Pitt, the energetic ally of Frederick the Great, the dictator of Europe, trembled and burst into tears. He passed a year and nine months in this morbid seclusion, while his colleagues carried out the measures proposed by their cunning monomaniacal king, under, as it were, Pitt's sanction, but in total contravention of his policy and wishes. The American colonies were taxed in defiance of Pitt's stirring declaration against such practices, but even this could not rouse him from his morbid state. He at length resigned his office. Nine months thereafter the gout reappeared and with it Pitt's intellect. He was once more hopeful, buoyant and self-confident, but, as Macaulay says, his insanity had enabled the government formed by him to violate every principle of foreign, domestic and colonial policy dear to his heart. It is by no means improbable that but for this attack of insanity the colonial relations of the United States to Great Britain might never have been changed.

Dr. Hollister asked respecting the mental condition of the patients during the gouty paroxysm; he had observed cases of decided insanity occurring during this condition.

Dr. Paoli had observed similar cases in Sweden, but was of opinion that the alternating form was more frequent. He asked if gout, independently of the question of alternation, did not exert a good influence on preexisting insanity.

Dr. Kiernan said that as was remarked by Dr. Paoli the alternating form was most frequent, and on this he laid special stress as it had a special relation to the case of Wm. Pitt. Gout, like rheumatism, certain constitutional conditions and fever, sometimes exerted a favorable influence on insanity.

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*Essay, Earl of Chatham.

Health in Michigan.

For the week ending January 20, 1883, the reports indicate that diphtheria, erysipelas, measles, diarrhœa, typhoid fever, bronchitis, influenza, pneumonia, and tonsillitis decreased in area of prevalence. There was no marked increase in any disease reported.

At the state capitol the prevailing winds during the week ending January 20 were southwest; and, compared with the preceding week, the temperature was slightly higher, the absolute and relative humidity slightly more, and the day and night ozone slightly less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 20, and since, at 19 places, scarlet fever at 21 places, and measles at 10 places. Small-pox was reported at Royalton, Berrien Co. (three new cases), January 17.

Since the close of the week for which this is a bulletin, there has been a remarkably low temperature and a considerable increase in ozone. Judging from past experience, we may predict a probable increase in influenza, which disease has sometimes preceded cerebro-spinal meningitis.

At the state capitol the prevailing winds during the week ending January 27, 1883, were southwest; and, compared with the preceding week, the average temperature was considerably lower, the relative humidity and the day and night ozone more, and the absolute humidity less. The range of temperature and of ozone was considerably greater than usual.

The reports show that, with the extreme low temperature and the considerable increase in ozone, there was a marked increase in area of prevalence of erysipelas, influenza, and pneumonia. Neuralgia, tonsillitis, diphtheria, and bronchitis also increased in area of prevalence. There was no marked decrease in any disease reported. The correspondent at East Tawas reports the prevalence of a disease in his locality that first attacks the tonsils, then the pharynx, larynx, and trachea, and sometimes the œsophagus, with enlargement of the glands of the neck, and suppuration in the ears. The health officer of the township of Crockery, Ottawa Co., reports the prevalence of sickness beginning with chills, followed by fever lasting from one to four days, with inflammation of the tonsils and throat. He also reports "many cases of winter cholera," which comes on very suddenly and is severe.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 27, and since, at 25 places, scarlet fever at 19 places, and measles at 9 places. Small-pox was reported at St. Joseph, Berrien Co., January 27.

For the week ending February 3, 1883, the reports indicate that intermittent fever, measles and rheumatism increased, and that diphtheria, tonsillitis and diarrhœa decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending February 3, 1883, were southwest; and, compared with the preceding week, the temperature was considerably higher, the absolute humidity greater, the day and night ozone considerably more, and the relative humidity less. The range in barometric pressure was greater than since the week ending April 1, 1882. The range in ozone was also great.

Compared with the average for the month of January, in the preceding six years, neuralgia, tonsillitis, and measles were more prevalent, and remittent fever, whooping-cough, and diphtheria less prevalent during the month of January, 1883.

For the month of January, 1883, compared with the average of corresponding months in the five years 1879–1883, the temperature was lower, the absolute humidity and the day ozone less, and the relative humidity and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending February 3, and since, at 19 places, scarlet fever at 18 places, and measles at 17 places. Small-pox was reported at St. Joseph, Berrien Co., February 3.

For the week ending February 10, 1883, the reports indicate that diarrhœa, scarlet fever, and diphtheria increased, and that neuralgia decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending February 10 were southwest; and, compared with the preceding week, the temperature was lower, the relative and absolute humidity less, and the day and night ozone more.

Including reports by regular observers and by others, diphtheria and scarlet fever were each reported present during the week ending February 10, and since, at 19 places, and measles at 16 places. Small-pox at St. Joseph, Berrien Co., was reported as having ceased, February 10.

Henry B. Baker,
Secretary.

Lansing, February 15, 1883.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Secession of the New York State Medical Society from the American Medical Association and its Associated Societies.

LONG and persistent efforts in this direction culminated last year in the adoption of a code of ethics which separated this state society from the representative body of the American physicians. This year the action has been confirmed by a vote 105 to 99. Thus it would appear that the opponents to the secession have increased during the past year. But the code of secession still stands. Dr. Roosa also introduced his former resolution, which is intended to abolish the present code. In short, he is not content till all codes are abolished. After this it does not appear that anything of a written nature remains to hold the profession of New York together aside from the laws enacted by the politicians of New York. The late meeting of the New York State Society did not elect delegates to the American Medical Association at its coming meeting, because they have deliberately cut themselves off from the articles of confederation of said body. Let it be remembered that the initiative of this action was from the State Society.

Let it also be remembered that this action of the New York State Society was this year taken in full knowledge of the fact that only two medical journals in the world, and these in New York; that all the state and local societies outside of New York and a majority of those in it, had lifted up their voice against such a movement. So that the action is taken with a full understanding of the views of the great mass of the medical profession everywhere. It shows that the ruling spirits of this society regard themselves entirely above any regard for the beliefs of the great mass of the medical profession. Indeed one of their organs, the New York *Medical Record*, says: "The present action of the society conclusively shows that New York State is determined to take care of its own ethical affairs, and resents meddlesome interference from outside influences."

Again the same journal says: "If a stranger had dropped in at any time during the sessions he could very justly conclude that the Medical Society of the State of New York was especially interested in one of two things—either the study of the diseases of the eye and ear, or the merits of the question of freedom in consultations." To outsiders it has seemed very apparent that the society had its "eyes and ears" directed toward "consultations." But we did not think its organ would have told the public so. Clearly the dominant spirits of the meeting were specialists in the practice of the diseases of these two important organs. Yet the journal tells us they had little to do with the action of the society.

The other organ of the New York State Society says: "We sincerely trust that the action taken may prove wise, and that its effect may not in the long run act as a bar to the affiliation of our State Society with those bodies that formerly worked in harmony with it." Such was no doubt the wish of the gentlemen who were active in precipitating the secession of South Carolina. But then, as now, the action was attended with unpleasant immediate consequences. Even to this day it is difficult to see the silver lining of the cloud.

The New York Society did one common sense thing, viz., it decided not to elect delegates to the next meeting of the American Medical Association. To all intents and purposes it has abolished for itself the entire medical rules binding the several state societies in one common organization, cut loose from the rest. Hence the absurdity of applying for representation with them as it did last year.

We have stated the general results of the meeting briefly. But it would be unfair not to place on record a few illustrations of the efforts of the friends of professional organizations and against their enemies, as they have been reported in the papers and journals.

Thus Dr. Rochester, of Buffalo, arguing from the standpoint of common sense, denied that the abolition of the code of the American Medical Association was demanded by humanity or progress. He said that it was an advance backward. He said that the American Medical Association had been denounced on this floor as a junketing, Rip Van Winkle association. He claimed that it contained the best men in the profession from every state of the Union, New York included. He was a permanent member of both associations, but he had rather give up his membership in the State Society than in the National.

On behalf of more than two hundred members of the New York County Medical Society, including Austin Flint, Alonzo Clark, Frank H. Hamilton, etc., Dr. J. C. Hutchison, of Brooklyn, presented the following memorial: "The undersigned members of the New York

County Medical Society hereby express their belief that it is unwise to abandon the code of ethics of the American Medical Association instituted in 1847. That any modification which may be advisable should be made by the body with whom the code originated, representing, as this body does, the medical profession of the United States, and therefore we are in favor of rescinding the action respecting the code taken at the New York State Medical Society at the annual meeting in 1882.

Dr. J. C. Adams, of New York, "as a delegate from the New York Academy of Medicine, protested against the action of the society in abolishing the old code, and charged the society that by its action in this matter it had assumed an attitude in direct and open hostility to the honor as well as to the best interests of the medical profession."

Dr. H. H. Didima, of Syracuse, said that he believed "that the so-called new code of ethics was opposed to the opinions of the vast majority of the medical profession throughout the world, as expressed in the action of county, state, and national associations, and in discussions in medical journals. He believed also that this so-called code by removing wholesome restraints, encourages a spirit of lawlessness and sanctions fraud; that it is hurtful, not only to the profession, but to the public; that its adoption sent a thrill of joy through the heart of every quack in the land and gave pain to the wisest and best of our associates in the regular profession."

We have thus presented a few of the opinions of some of the members of the medical profession of New York that our readers may not think that all the medical men in that state have gone over to the ranks of the disorganizers, of the secessionists from medical confederations.

We are still firm in the belief that the large majority of the profession of the State of New York still hold to the old code, and that they were overcome partly by their own apathy and lack of organization, and partly by the well-known parliamentary ability and unscrupulous cunning of the secession leaders. We trust that the majority will not give up the ship, but organize and continue the fight for the common good. Whether it may seem best to organize a new State Society outside the influence of politicians and thus be represented in the American Medical Association or not, they can best determine. At this distance it strikes us that such would be the best mode of meeting the emergency. Let them not forget that the entire medical profession of America is interested in their struggle, and bids them "God speed." Further, it will assist them to such extent as seems wise.

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A Suggestion Towards the Solution of the Problem of the Notification of Infectious Diseases.

The notification of cases of infectious diseases is a subject fraught with many difficulties. In Scotland the matter had been widely agitated, as indeed it has through the United Kingdom. The profession are required to make the notification and are paid 2s. 6d. for each case, but still the results are unsatisfactory. In fact, after many years of such notification, in Edinburgh, epidemic diseases are even more prevalent than previously. The proportion of such cases has actually increased. It seems that very many persons will not call a doctor at all when they find out that the doctor will peach to the health office, and so the cases are not cared for, and so the diseases spread. As a remedy for this state of things, Prof. Gairdner, of Glasgow, (*Brit. Med. Jour.*) suggests that a small reward be paid to any person who shall notify the health office of any case of infectious disease. In this manner he thinks that the neighbors of the infected house would be stimulated to report the cases and so instances of concealment would be practically impossible. The more ignorant the neighborhood the greater would be the foreign power of the twenty-five cent reward. Of course there would be some jokes, but a little patience on the part of the health office would determine the correctness of the information without annoyance to the parties.

Let it be known that the health officer of Detroit, for instance, would pay to any person the sum of ten cents for every genuine case of infectious disease brought to its notice, and every newsboy in town would turn detective; also servant girls and all classes of people who have need of small sums of money. The inspectors of the health office could speedily ascertain from the attending physician the truth in the matter, or make a personal investigation when no physician was in attendance. In this manner there might be some chance for a health officer to accomplish something toward the diminution of the deaths from this class of affections. There is no reason to suppose that the present system has diminished the number of cases of infectious diseases in Detroit more than in Edinburgh. This suggestion is made in connection with an able article having several other points of interest. Thus, he says, that the medical man believes fully and wholly in the value of notification of infectious diseases. But when he is called to see a patient it is in that patient's interest. He is called because the patient believed he will look after his interest under all circumstances, even though these interests be in opposition to those of the public. Further, this mutual confidence between physician and patient is the only basis upon which medical services receive popular support. Now, as the sanitary law stands, the conscience of the physician towards the public is placed in direct antagonism to the physician's conscience towards his patient. Which will he follow, as he is paid for following both? Should we wonder that medical men object to being placed in such a position? An illustration is best given in Prof. Gairdner's exact words: "Let us assume for a moment that the popular personal view of 'the interests of the patient' is wholly wrong; that unwillingness to notify is simply and always an error of ignorance and stupidity, and that the poor man, who may be both deprived of his bread and hurt in his feelings by sanitary interference, has no moral right to feel aggrieved. Still the fact remains that he does in certain cases feel aggrieved. Sanitary inspectors are not always polite and conciliatory in dealing with ignorant obstruction. Is it nothing that the man who is to be called upon in the name of the law and at his own peril in case of neglect or refusal, to set the ball of officialism rolling in such cases, is also the man whom the patient or his friends have voluntarily called in expressly to guard the interest of the patient? Grant that they are wrong in desiring the privacy of the sick room to be respected, and that they themselves ought to be compelled by law to divulge what they would rather conceal. Are they equally wrong in supposing that the man who will first take their fees and then secure an extra half crown by peaching upon them to the sanitary authorities, is guilty of very much the same dereliction of duty, so far as they are concerned as an engineer, or a lawyer who accepts a double commission?"

As this matter is sure to come before the people of the several states in the near future, these points are worthy of general attention in order that we may profit by the experience of the past.

A New Hospital Criticised by a Sanitarian.

One would think that the gospel of sanitary science had been preached long enough to have made such an impression upon the popular mind that any considerable hospital would be constructed in accordance with its principles. But alas for the facts. Unquestioned evidence shows that very rarely are hospitals thus constructed. The last one brought to our notice is the St. Mary Hospital, of Brooklyn, N. Y. Our quotations are from the *Sanitarian*. The building thus far completed has a capacity of two hundred beds. "Being situated two or three hundred yards from the present limit of the city sewer, a cess pool has been constructed at an expense which would have made a connection with the sewer. Pan water closets are now everywhere recognized by intelligent people as dangerous to any household, yet these are scattered on every floor, and in such wise connected with bath tubs and wash basins, inefficicently trapped and not liable to daily use, as to admit the free return into the building of whatever foul gases may be generated in the cess pool and all the pipes in connection therewith. As for ventilation there is none worthy of the name. The floors are wonderfully cut up into an unnecessary number of wards for the space, which should have been divided by movable screens six feet high instead of walls. There is an open space in one corner near the floor of each of the larger wards, provided with a closet like door, ostensibly for ventilation. But assuming that this door may be left open, the apparent air shaft is a three cornered space, which has for its lining the rough inside of the plastered wall and porous brick, admirably adapted to the collecting and holding of any organic matter which may be wafted therein from the sick room. The isolating wards on the fourth floor for contagious diseases are ventilated only by windows and doors opening into a narrow hall way leading through the centre of the wing. No new demonstration is necessary to show the criminality of all hospitals constructed without regard to an abundant supply of pure air, and the danger of such plumbing as that which has been put into this institution. Unless these glaring defects are speedily remedied the structure is calculated to bring disgrace on the faculty and destroy all the promised utility of the institution."

This state of thing is the more to be regretted as a new plan of hospital administration has been inaugurated by Dr. Byrne, the eminent organizer of the institution. He has sought to have a hospital staff composed of representatives of all the specialties, or to combine a large number of special hospitals under one roof. With a proper building there is no reason why such a hospital should not succeed under his administration. But the outlook is rather dubious in view of these defects pointed out by the *Sanitarian*. More it is to be hoped that those constructing new hospitals may be induced to heed the warning, and that all physicians may the more carefully investigate the plumbing and ventilation both of the houses of their patients and of the hospitals with which they are connected.

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The Last Example of the Doctor's Perils.

In a great variety of ways doctors are exposed to dangers arising from the maliciousness of their blackmailing patients, or others ill disposed towards mankind in general, and doctors in particular. But still many are so reckless as to refuse tc protect themselves where protection is possible. Thus they continue to make uterine examinations and treatment without the presence of a third person, in spite of the numerous cases in which doctors have been placed to great trouble and expense simply because of this neglect.

The present story comes from England, and is told in all our English exchanges. Briefly it is this: A young medical man bought a share in the practice of an old doctor at Hounslow, a small place half way between London and Windsor, for the sum of nine thousand dollars. It seems that the young man was very successful in gaining the confidence of the people of the place. Lately the old doctor urged him .to sell his interest in the business for twenty-five hundred dollars. To this the young doctor objected. Shortly a female patient brought the charge against the young doctor of assaulting her, and the old doctor supported her in the charge. After telling his wife of these facts and agreeing to bring suit against the pair, the young doctor went down stairs, wrote his last statement, took a fatal dose of prussic acid and died. In this statement he said "that in the presence of his Maker, he would have met the charge, but there was no hope, as his partner had turned against him. At this solemn moment," he says, "I solemnly declare that I am innocent of the charge, which has its origin in the morbid imagination of a licentious minded, hysterical woman."

After the inquest, in which the facts were brought forth, the wrath of the public was so aroused against the old doctor that a mob sacked his premises, he having fled so that they could not find him. A large force of police was required to prevent further mischief. The best that can be said for the old doctor is that he feared the "practice" would be injured, and so offered the young doctor a trifling sum of what he had contributed to the firm for him to flee the country—contemptible selfishness, if not actual criminality. The old doctor will probably take an extended vacation from that town.

On the other hand, had the young doctor taken care to have seen this woman while professionally treating her in the presence of a third party, he would probably have escaped the terrible fate which befell him.

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A Defense of the Editor of the British Medical Journal.

Some time since we published the substance of the complaints made by Dr. J. M. Fothergill, against the editor of the *British Medical Journal* as a basis for the exercise of great caution in the establishment of a similar journal for the American Medical Association. A correspondent of the *Louisville Medical News*, while in England, has been investigating the real state of the case. In substance he says that he finds that Dr. Fothergill is a sore head, who would like to be editor of the *British Medical Journal* himself, hence the genesis of his antagonism to the present editor. The editor of this journal is strictly confined to his own duties in the conduct of the journal. In that capacity he is allowed a large discretion in respect to what he shall publish and generally selects the writers. He is chairman of the Parliamentary Bills Committee, and as such has been instrumental in greatly influencing public opinion outside of the Association. He is officially outside of the administration of the association and can affect it only as any other man of similar energy and purpose could do. Nor does he attempt to modify the powers of the several committees having charge of the association management. For the past six years the annual surplus of the *Journal* has been $10.000, and it now has an invested fund of $60.000. The Association now owns its building, prints its own journal, etc., and has an invested fund of $60.000.

From the representations of this gentleman it would appear as if there was nothing to fear from following the example of the British Medical Association in establishing an Association journal. We are glad that this statement has been made and that the other statement called for it as it still farther calls attention to the matter and so aids in bringing about a correct appreciation of the scheme by the general medical public of this country. To our mind the future prospects of this proposed journal are far better than those of any medical journal ever started in any country. Its field is immense and its opportunities for good in its influence upon professional thought and practice unlimited.

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Is it True?—Has the Illinois State Board of Health Unconditionally Surrendered to Columbus Medical College?

Such is the announcement made by Gaillard's *Medical Weekly*. In October Dr. Rauch, secretary of the Illinois board of health, requested a formal communication from the West Virginia state board of health giving its action respecting the Columbus Medical College. It was understood that it would sustain the West Virginia board. But meantime a nephew of Dr. J. W. Hamilton, the owner of Columbus Medical College, had become governor of the State of Illinois. The Illinois state board of health has not sustained the West Virginia board. By default it recognizes the college who granted a diploma to a man after three weeks attendance upon a lecture course. Is this a stand that promises a higher medical education? Is this the board which is to sweep Illinois free from uneducated doctors? Is three weeks lecture attendance sufficient to constitute a regular medical course? Alas the times! the customs! It looks as if the owner of Columbus Medical College fixed his nephew, the governor of Illinois, so that the Illinois state board dared not to peep against Columbus Medical College. Against little colleges which have little or no influence in the political circles regulating the appointing power of the Illinois state board of health we may expect fulminations of excommunication, but the rest may do as they please. Such seems to be the lesson of the past as regards this board, and so it will be till the end of time. Political power regulating the practice of medicine is useless unless the people are themselves so educated that they can do their own regulating. Then state boards will not be needed. We are very sorry that the "backbone" of the Illinois board has proved to be "mush" against a really powerful and dangerous adversary. In fact, we hope that in some manner it may be shown that the whole affair is a myth and that the board will sustain the action of the West Virginia board. If not, the days of usefulness of the board are ended.

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The Mortality Referable to Alcohol.

The differences of opinion upon this question are very great. To aid in the definite settlement of the inquiry the Harveian Society of London appointed a committee to investigate thoroughly and report. This report lies before us and from it we shall make some quotations indicating its bearing. It seems evident that in London the proportion of deaths from alcohol to the deaths from all causes is a little more than 15 to 4; of the remainder, 10 per cent. of deaths are due more or less indirectly to alcohol. The deaths from alcohol are greater among men than women. As to the occupations of those dying from alcohol most were from those engaged in the liquor trade. The mortality among any considerable number of persons will differ from that prevailing among adults in the following important particulars, viz., a fourfold increase in the deaths from diseases of the liver and chylopoietic viscera; a twofold increase in the deaths from diseases of the kidneys, a decrease of half as much again in those from heart disease, a marked increase in those from pneumonia and pleurisy, a considerable increase and an earlier occurrence of those from diseases of the central nervous system, a marked decrease in those from bronchitis, asthma, emphysema and congestion of the lungs, a decrease nearly as great in those from phthisis and later occurrence or at least termination of the disease; a very large decrease in those from old age, with an increase in those referred to atrophy, debility, etc., and the addition of a considerable group referred in general terms to alcoholism or chronic alcoholism, or accidents."

These results do not widely differ from those reached by careful clinical observers, but they have the advantage of having a larger number of elements of exact observation upon which to rest; in short, they more nearly approach a demonstration.

An additional point of interest was that while among the adult population of London more than one-half of the deaths occurred between the ages of thirty-five and sixty-five; among the adults dying from alcohol three-fourths died between the ages of thirty and sixty. Thus the deaths from alcohol occur relatively at an earlier age than the deaths from all causes. Clearly the habitual use of alcohol shortens life.

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By Their Fruits Ye Shall Know Them.

The *Medical News* says: "One of the results of the action of the New York State Medical Society was the introduction by Senator Pitts into the New York State Senate of a bill providing that the state and county medical societies, the state homœopathic and eclectic and their several county organizations, shall not adopt any rule or regulation which shall prevent members of such organizations from consulting with any duly authorized practitioner of medicine of any school of the state, and that all rules and regulations prohibiting such consultation shall be void. Except that one member objected, it is said the bill would have immediately passed."

Thus it follows that if doctors are willing to let politicians regulate their private affairs, they are likely to be put to the test. If the legislature has power to act in this matter, it has power to go still further and abolish all distinctions between the good and the bad in the profession from a social and scientific standpoint. In short, it has power to reduce the profession to abject slavery, bound hand and foot to do its bidding. It is just possible that even the present advocates of the new code may get more law regulation and dictation than they shall relish.

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Memoranda.

Women have a college of pharmacy all to themselves in Louisville.

Professor Helmholz has been made a noble by the German emperor.

The latest remedy for the vomiting of pregnancy is pop corn.

For cruelty to his family a Cincinnati physician has been sent to the workhouse for 30 days.

The death rate of last year for New York City was 29 per 1,000. There were 10,000 less births than deaths.

Of 11 physicians who died in Texas last year, three died by accidents, three were shot, and five committed suicide.

At its late commencement the medical department of the California State University graduated 15 persons.

Towns near London have on an average 50 per cent. more sunny days than the great city. Such a dark pall is London smoke.

Mrs. Geo. M. Beard died the week after her husband of pneumonia. Only a little daughter remains in the family.

At the College of Physicians and Surgeons of Baltimore, five students have had small-pox and two have died.

The brain of Gambetta was found to be below the average weight, only 36 ounces—a microcephalic brain.

In New York the Sunday hospital collections this year were but $20,000, against an average of $37,000 for the three preceding years.

Gaillard's *Medical Monthly* states that there are 2,000 cases of small-pox in Baltimore, of which only 800 have been reported by the board of health.

At the post mortem examination of the late Dr. Geo. M. Beard it was found that his death was due to an embolic pneumonia originating in an abscess of the upper maxilla.

The board of commissioners of New York have dismissed Dr. Carnochan from the post of consulting surgeon to Ward's Island, and appointed Dr. H. B. Sands in his stead.

In the ruins of Pompeii has been lately discovered a quadrivalve speculum, exquisitely proportioned, with a movement unsurpassed by the most perfected of modern instruments.

A recent decision holds that if a surgeon recovers his fee in a suit for the value of his services, no subsequent suit can be brought for malpractice, this being settled by the results of suit for services.

Dr. Polk recently removed a displaced kidney; the patient lived eleven days, when it was found that she had but one kidney, the one removed. The case was of interest as showing how long a person can live without any kidney tissue.

The editor of the *Alienist and Neurologist* says that he needs no register of medical men, because all eminent men who do not take his journal are recorded as approving of the several proprietary medicines presented to his notice.

If a person knowingly communicates a contagious disease to another and death results the crime is that of manslaughter; such is the common law. Most persons escape because of the expense and trouble in bringing about conviction.

It may interest those urging the compulsory notification of infectious diseases to know that in Edinburgh "after several years of compulsory notification the death-rate of the leading epidemic diseases is higher than it was previously."—*Brit. Med. Jour.*

At Germantown, Pa., a lady was sent to the pesthouse for small-pox. It turned out that she simply had measles, but at the pesthouse she took varioloid. Five similar cases are reported in Baltimore during one week. Rather tough on those having measles.

At Sheffield, England, thirty women recently delivered are known to have been infected with syphilis by the same midwife. Nine husbands have also been infected, and some of the infants. The midwife has been prosecuted.

The commissioners of Cook County Hospital have a sure remedy for settling any disagreement in their medical staff—the entire staff is at once bounced and a new one appointed. Thus within two years they have had three different medical boards.

Two Philadelphia doctors have been charged in court with a conspiracy to obtain from a helpless and aged invalid a conveyance of all her property to themselves for no other consideration than medical services rendered by one of the precious pair.

There has just been a great scramble for a parish appointment in the slums of Edinburgh, worth three hundred dollars a year. A sample of the fierce struggle of medical men for existence. Will the fittest survive under such conditions?

Verchojansk in Siberia is said to be the coldest inhabited town in the world. In 1882, during January, the thermometer showed a mean temperature of -43°F., during February -56°F., during March -37°F. Once the thermometer was -81.4°F.

An exchange says that by actual count "there passed a certain point on an ordinary day one hundred and five men, boys and a mule; one hundred of these were engaged in smoking; five of the men and the mule were not. Clearly the mule was on the exclusive aristocratic side of the question."

Dr. T. Gaillard Thomas is reported as saying: "I believe that I represent the feeling of the majority of our best conservative men in saying that I consider the breaking down of the barriers, as was done last year, as disastrous in its effects and very much to be regretted."

Recent extended researches by Berlin, of Stuttgart, Germany, show there should be a change in our present method of teaching writing. We should place the copy-book in an oblique position directly in front of the child, instead of to his right and parallel with the edge of the desk.

The recent register of German physicians states that there are 17,623 regular practicing physicians in the Empire. The proportion in Berlin is one physician to 1,071 people; in the country one physician to 2,609 people. There are 153 medical publications, aside from 95 periodicals from medical societies.

The Chicago *Medical Review* has again changed. It has been bought by a St. Louis firm, and will be issued as a weekly from both Chicago and St. Louis. Dr. Dudley, of Chicago, and Dr. D. C. Gamble, of St. Louis, are to be the editors. The subscription price will remain as formerly, $3 per year.

H. Cohn recommends as meeting the needs of teachers and the science of oculists the use by scholars of white artificial slates or tables and special lead pencils. These permit the slate to be used farther from the eye and so obviate the tendency to the development of myopia.

Illustrating the poverty of medical men, is the following from the New York *Medical Record:* "One year ago there died in New York city a surgeon widely known and justly celebrated for his skill and knowledge. He had practiced twenty years, and yet subscriptions are being passed for the benefit of his widow. There are too many doctors."

The leading homœopathic journal of this country says of the eclectics: "Aside from calling attention to a few new remedies the eclectics have been parasites on the body politic"—"Eclectics have no prejudices nor scruples and absorb like an oyster. They are liberal and have always been ready to champion the side of homœopathy, and it is this strange alliance which has given them much of the vigor of to-day"—"Logical, clear headed eclectics, make good homœopaths, but the oysters are oysters still." It is well to know what one's neighbors think of him, so that eclectics will doubtless be grateful for the above opinions.

The Illinois State Board of Health reports in detail a case in which a live barber assumes a dead doctor's name, obtains a State Board of Health certificate on forged letters and a stolen diploma, butchers a mother and infant in his *role* as accoucheur, and flees justice. His assumed name was Dr. Henry A. Luders, and his diploma from the University of Gottingen. His real name was Lambrecht.

The new Chicago Medical College has been sued by some of its students whom it matriculated upon certain terms and afterwards would not fulfill the same. The terms were that the students should graduate at the end of their first regular course of lectures. The college scarcely wanted the advertisement of having its first graduates refused matriculation by the Illinois State Board.

In Scotland the medical man is paid "sixty cents" for each case of infectious disease reported to the health authorities. The rights of the doctor are in this regard fully recognized by the government. The penalty for failing to notify is ten dollars. In Detroit the doctor gets nothing for reporting, and is threatened with a fine of five hundred dollars if he does not report. Which is the free country, the country of respected individual rights?

On Friday evening, February 2d, Dr. John V. Shoemaker, of Philadelphia, Pa., gave an elegant reception to the president and one of the vice-presidents of the American Medical Association. To meet these distinguished gentlemen there were present as invited guests a large number of the profession from Philadelphia, New York and other adjacent cities. No doubt professional association accomplished much good here as elsewhere.

A Philadelphia paper states that a homœopathic physician has lately been sued by a young lady whom he sent to the small-pox hospital when she only had measles. He said that he believed that she had small-pox, because the early stages of the two diseases are alike. He was acquitted. That will pass; regular physicians of high repute make similar mistakes, but we never heard them claim that the early stages of small-pox and measles were alike.

During the past four years there has been a decline of fourteen per cent. in the number of students attending the London medical schools. The number of medical students at Birmingham, Manchester, Liverpool and Bristol have during the same period increased fifty per cent. The Scotch schools have reached very large dimensions during the same period. The *British Medical Journal* ascribes this state of things to the fact that relatively the London schools are poorly equipped, both as to means for instruction and as to teachers.

The *Medical Annals* states that in the old archives of New York, it found "that the New York State Society was organized largely to correct the degradation of the profession from ignorance, professional broils and the grossest empircaism." It was believed that the profession could be made useful and respected by bringing it under the restraint of the great body of its members. Evidently it did not work well then to leave every one to determine for himself what should constitute a physician and a gentleman.

Dr. Vande Warker deplores tinkering with medical legislation and before the New York State Medical Society stated that the laws enacted by the advice of the society were lamentable failures. He also thinks that the medical law of 1880 was made to protect the quack. Another member of the society remarked, "that in his county an Indian doctor, adorned with war paint and feathers rode into the village the other day in his chariot. He registered, and was now considered a legally qualified practitioner, and placed upon a footing with other members of the medical profession."

A correspondent of the *Cincinnati Clinic* states that so little attention is paid to the water supply of St. Paul, Minn., that a dead body was taken from the lake whence the water is derived, and close by the inlet pipe. The body proved to be that of an employee of the water company, who had been missing for many weeks. It was found by some parties engaged in fishing at the lake, otherwise the entire body might have been dissolved and drunk by the inhabitants of that city. "Look after your water supply," is a safe watchword for every city.

Surgeons have already operated upon almost every organ in the body. But it remained for Dr. B. F. Westbrook, (*Medical Record*) to tap the right side of the heart for the relief of an over full heart. The operation was a success but the patient died. It does not appear that the taking of blood from the veins had been tried for the relief of the over charged venous system. Who knows but this operation shall become a regular surgical procedure? That the heart is constantly changing its position will of course cause a movement of the needle, but then it is of little matter that blood escape into the pericardial sac.

The *Medical and Surgical Reporter* says that it has received a circular from a physician who runs a sanitarium in Pennsylvania, making the following confidential offer. "For each and every paying patient which you send to this sanitarium, we will remit you two dollars cash per week as long as your patient remains, etc." Rightly the editor thinks this a very mean action, but it is no meaner than for physicians or surgeons to make a similar offer for sending them good paying patients. It is within our knowledge that a good business has thus been built up. But it must be confessed that the persons making such bribes, occupy a low place in the estimation of even those who accept the bribe.

A bill was introduced into the New York legislature shortly after the meeting of the State Society at Albany, by Mr. Quinn, providing that the right of every citizen and of the people is to employ for medical purposes any person they please, whether they have a diploma or not, or have been registered or not. Said person acting as a physician shall not be subjected to any other legal liabilities than those imposed by the common law. The legislators are the bosses of the medical profession according to Agnew, Roosa, Piffard and others who desire the abolition of all medical codes in the medical profession, why should they not have any doctors they please? Such are some of the results of the new code. More to follow, none, it is to be feared, in the interests of the medical profession or of humanity,

In our last issue we called attention to the organization of a new medical school at Toledo. A circular lies before us in which it is announced that a second medical school will be commenced next October. Thus Toledo is to have two medical schools. The name of the second school is "Northwestern Ohio Medical College." Dr. C. A. Kirkley is the secretary and will answer all inquiries. We wish it had been able to state in this circular that, as it had an endowment of one hundred thousand dollars invested, no student need apply unless he had completed the equivalent of an ordinary college course, and that none could graduate unless he should spend three full years in college study. There would then have been some hope for a glorious future for the school and it would have met the approval of the most thoughtful persons in the profession and out of it. Our friends have our hearty wishes for their success under the unfavorable conditions of their organization.

The editor of the *Planet* says he is asked: "Are private doctors allowed to send out advertising cards from house to house asking for patients?" He replies "Well no; that would be contrary to the code of ethics and would be considered quackery on the part of doctors." He is then asked "How is it that hospital doctors are allowed to send out advertising cards?" He replies "Oh! they are public men; that is quite different; you do not see the case clearly at all." There is this consolation for the editor: he lives in a state which lets every doctor consult with whom he pleases and the indications are that after next winter all doctors will be at liberty to exercise the same freedom respecting their advertising. It is the shame and element of inherent weakness that the average medical college is simply and openly a scheme in which the faculty seek to wrong their fellow practitioners under the guise of a medical school or charity hospital. Our wonder is that the long-suffering profession has endured it so long as it has. Our wonder too is the greater when it can, we think, be shown that an entirely honest, manly course, such as all honest medical men would approve, would in the long run be more profitable.

Referring to the late meeting of the New York State Society the Boston *Medical Journal* says: "The fallacy which underlies the arguments of the discussion against the code of ethics is, 'that the law makes the physician, and that the physician is an officer of the law.' This is not true. A physician in this country is a private citizen; he is recognized by the law and responsible to it, like other citizens, but he is not made a physician by legal enactment, nor is he a state officer, and if he is wise he does not wish special legislation, for experience has shown that whenever the profession has tinkered with the law it has been made to suffer for it in the end. The more our societies confine themselves to their proper field—the joint cultivation of medical science and good fellowship—and the less they meddle with medical politics, the better it will be for their own future and the common good of the practitioner." Of the meeting as a whole it says: "The net result is to impress the mind with a sense of the predominance of the commercial over the professional or scientific elements of the practice and pursuit of medicine."

Dr. King (*Trans. Missouri Med. Society*) says: "We have an old crow here who can scarcely spell his own name, and who will undertake any kind of a case. He gets the drug clerks to help him make out his prescriptions. One of our physicians overheard the following conversation between a facetious drug clerk and this fellow, while the clerk was helping him with one of his prescriptions:

Clerk—Doctor, I suppose that you have performed a great many surgical operations in your time.

Quack—Oh, yes; a great many.

Clerk—Doctor, I have long since desired to find a surgeon who has performed a certain operation, and an operation which has only been performed a few times, I believe.

Quack—What operation is it?

Clerk—It is the operation of abdominal digitalis.

Quack—Oh, yes; I have done that operation twice; but the doctors in this town will not give me credit for it.

Clerk—There is another operation that I wish to ask you about (and I have no doubt you have performed it), and that is aortic regulation.

Quack—Yes, I have done that, too, over at ———town. Oh, I tell you it's an awful bloody operation."

At a meeting of the Michigan State Board of Health, at Pontiac, Michigan, Feb. 1, 1883, the following resolutions relative to the National Board of Health were adopted:

WHEREAS, The work of the National Board of Health has been seriously crippled by reducing its appropriation and by transferring to another branch of the government service important parts of its legitimate work and means for usefulness.

Resolved, That, in our opinion, no other government service is so well qualified to perform the health service of the United States as is the National Board of Health, which has shown by its works its ability to do what was assigned to it, and to gain and retain the confidence of sanitarians throughout this country.

Resolved, That we consider it of the highest national importance, as also of great importance to this state, that the National Board of Health shall receive annually an appropriation sufficient to enable it to carry on the important work of protecting the country from the introduction of contagious diseases; of collecting and distributing for the guidance of state and local boards of health, information relative to the prevalence of diseases, and particularly of contagious diseases; of investigating by specially qualified experts the obscure causes of diseases, and of publishing to the world the results of its studies and investigations, more especially concerning diseases, which, like diphtheria and small-pox, spread generally throughout the country.

Resolved, That a copy of this preamble and resolutions be forwarded to each member of congress from this state.

Editor's Book Table.

Report of the Eastern Michigan Asylum for the Two Years Ending September, 1882.*

We have read this report from beginning to end with great interest. It is full of facts valuable to the medical profession, to alienists and to the laity. The medical and administrative management of this institution challenges the admiration of all who have any conception of its difficulties. Evident harmony and enthusiasm pervades every attache of the asylum, the superintendent, medical men, attendants and trustees.

Although the capacity of the institution is 600, it is entirely full so constantly that those desiring to enter or to have friends enter are called upon to furnish previous notice. A few points we desire to especially emphasize. It is a practical question often asked, what percentage of patients recover? Dr. Hurd answers: "The whole number of discharges since the opening of the asylum is 482. Of these, 267 are now at their homes, industrious and self-supporting. As over 1,000 cases have been admitted to the asylum, it follows that over 26 per cent. of the whole number of admitted cases are now living outside of the asylum, cured."

A careful study of the post mortem appearanes observed in 26 cases in which autopsies were made is given by Dr. J. D. Munson. Of these cases he says that the average age was $48\frac{3}{10}$ years, and the averge duration of the mental disease $13\frac{1}{10}$ years. We cannot here detail the gross lesions observed. Microscopically, he found, in patients suffering from chronic insanity, atrophy of circumscribed areas of gray matter, and wherever adhesions had existed between the cortex and the pia, profound pathological changes and even total destruction of the gray matter. The changes found in other classes of mental disease we will present elsewhere. This work is well done and gives Dr. Munson's friends additional evidence of his special fitness for the life work he has taken up.

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*REPORT OF THE BOARD OF TRUSTEES OF THE Eastern Michigan Asylum at Pontiac for the Year Ending Sept. 30, 1882. Lansing, Mich.: State Printer. Paper; pp. 92.

In explaining the table of causes of insanity, Dr. Hurd says: "Insanity is rarely to be ascribed to a single cause. In the great majority of cases it is the product of many causes acting in concert. Thus a person of neurotic organization lives in an unhealthy climate, works beyond his strength, suffers much anxiety from loss of property, or from sickness in his family, and these causes combined produce an attack of insanity. Observers looking at this case from different standpoints may ascribe it in turn to the neurotic organization, the unhealthy location, the over work and the business worry, when probably not one of these causes, singly, would have been sufficient to produce the disease. The underlying feature in the vast majority of cases seems to be an organization prone to take on diseased action from any exciting cause. There are instances where a sleepless night, a severe toothache, an attack of pneumonia, of malarial fever, or some slight disturbing cause, has been sufficient to produce an outbreak of insanity. In this case the latent susceptibility of the individual is easily rendered active. Hence a cause which would be entirely inadequate for the production of insanity in a healthy organization, in a neurotic organization may be followed by very serious results." Attention is directed to the marked diminution in the number of cases of general paresis, as indicating that increasing commercial prosperity has been the occasion of the same. Two cases are detailed in which an unexpected improvement followed the appearance of extensive sloughs.

As to the occupations of those admitted into the asylum, the largest numbers were, in order, farmers, common laborers, farm laborers, domestics, students, teachers and musicians, housekeepers, etc. A useful grouping of the cases is given on the clinical basis, as neurasthenic, masturbic, climactric, etc. The distinction between the insanity of pubescence and the insanity from masturbation is carefully drawn.

What determines whether the attack of insanity will be recovered from? Dr. Hurd answers: "If the patient have a well balanced mind, suffers from a curable form of disease, receives proper treatment at a curable stage of the disease, and has sufficient native vigor of constitution to establish and maintain a healthy nutrition of the brain, there is every reason to anticipate he will recover. Many recover where some of these important factors do not exist, it is true, but they are more liable to relapse, and their restoration to health is never so perfect."

Notes are made of the value of the new remedies found of special service, as hyosciamine, codyia, jaborandi, chloride of barium, convallaria majalis and mono-bromide of camphor. Dr. Hurd's report of his observations in the European hospitals as regards the employment of the same, are both interesting and of practical importance. They so favorably impress us with their solid common sense that we fully expect that he will soon be granted full opportunities for putting the principles deduced into active operation. As a whole, we commend this report to the attention of all interested in the care of the insane. The trustees of this asylum were very fortunate in being able to secure such competent medical care and superintendence.

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Tidy on Legal Medicine.*

This is a really good work from the beginning of the first to the end of the second volume. The importance of such a work is best realized by the expert in legal medicine when called upon for the reasons why a certain person should be held guilty or innocent of some capital offence. The responsibility of such positions is not always appreciated by "would be" experts. These often seem to think mainly of their own advantage rather than the actual truth as to that which they testify. Hence it is that we see so-called eminent experts testifying in one manner on one day and, owing to the gold of the opposing party, on the opposite side on the following day. But in the work before us there seems to be conscience as well as knowledge. The work is based upon all the recorded cases that could be found reported in either domestic or foreign literature. These cases have been abstracted, and such as refer to the text of any chapter are placed at the end of the same. In this manner it is possible to read the cases with the text or separate from the same. It is also possible for the reader to at once refer to the authority upon which is based any particular statement. The care with which these cases have been selected and arranged is worthy of all commendation. By themselves they furnish a most interesting and instructive chapter. The author has also been at great trouble to record his own experiments as bearing upon disputed points. Evidently his investigations have been numerous and important. Thus they throw a flood of new light upon very many questions. All in all, the work is admirable in its spirit and more admirable in its execution. No person should practice medicine without having read and studied it with the greatest care. It will throw much light upon the proper study of certain cases irrespective of their medico-legal relations.

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*LEGAL MEDICINE. By Charles Meymott Tidy, M. B., F. C. S. Vols. I. and II. New York: William Wood & Co. 1882. Cloth 300 pp. each volume. Forming the November and December issue of Wood's Medical Library for 1882.

To argue back from a certain period after death, as to the time, conditions, place of death requires a very special study. This study is the more neglected as usually all the doctor's relations to the patient end with his death. Take for example a case in which the rigor mortis has not occurred, how long must the subject have been dead? The fixing upon any definite time from this single circumstance alone is impossible to the well-posted student. Niderkorn's one hundred and thirteen cases show that the range of time at which the rigor mortis actually did take place varied from two to thirteen hours. Seventy-nine of the whole number of cases became rigid between the third and sixth hours. In all the cases, however, one or more of the articulations were rigid within two hours after death. The involuntary muscles become rigid sooner than the voluntary.

Post mortem rigidity is late in appearing in cases of sudden death occurring in muscular well developed subjects. So also it is slow to appear in subjects exposed to cold; but there is no case upon record in which it has been delayed beyond twenty-four hours. The rigor mortis may appear usually early. Thus it has been known to begin at the very moment of death; in other words, living contractions may pass at once into post mortem rigidity. Thus numerous cases are upon record where after death the body retained precisely the same attitude that it assumed at death. Thus, on the battle field soldiers have been found in the act of taking aim, the expression of countenance, the kneeling position, the hands grasping the rifle, being cases in which this sudden rigor mortis occurred.

Among the questions settled by the rigor mortis of a dead body are the following: 1. If a dead and rigid body with open eyes and dropped jaw be discovered fitting itself to the surface on which it rests, the muscles of the buttocks or other parts being flattened at the points of pressure, the probability is that death occurred at the precise spot where the corpse is found. If the body was interfered with after death such interference must have taken place before post mortem rigidity set in. 2. If a dead and rigid body be discovered not fitting itself to the surface on which it rests, the probability is that the body is not in the place at which death occurred, or at least the body was interfered with after post mortem rigidity took place. 3. If a dead body be discovered fitting evenly to the surface upon which it rests, having the eyes closed and jaw closed, there must have been some interference with the corpse after death before post mortem rigidity commenced.

For the recognition of objects or persons at a given distance it is needful to determine whether the person has perfect vision or such vision as would enable him to see the object he claimed to see under the circumstances under which he claimed to see it. This calls for a consideration of the vision of the person; was it normal, or the defects so compensated as to enable him to see as claimed? Then the amount of light must be determined. And lastly, is the object of such size and shape as to be seen. It is believed that with good eyes one can recognize an acquaintance at a distance of one hundred and sixty-four yards, but a stranger at thirty-three yards. The establishment of the identity of persons while usually easy, is under certain circumstances fraught with great difficulties. Apparently all of these are pointed out.

The significance of burns and scalds upon a dead body he discusses very fully and many experiments are recorded. From all these he concludes: 1. Given a burn on a dead body where there are serous blisters, the serum being thick and rich in albumen and the blisters surrounded by a deeply injected red line, the true skin after the removal of the cuticle also presenting a reddened appearance, the evidence is strong that the burn was produced during the life of the person, whilst it is conclusive that it was caused during the life of the part. 2. Given a blister containing air the true skin after the removal of the cuticle appearing dry and unglazed, of a dull white color, or dotted with gray specks at the opening of the sudoriferous ducts; or given a blister containing a little thin non-albuminous serum, there being in neither case any red line surrounding the blister, nor any injected condition of the cutis vera or subcutaneous tissues, the evidence is strong that the burn was inflicted after death.

The origin of coroner's inquests in England was during the reign of Edward I., thus: "A pretty citizeness of London had had six husbands, one after the other, the first to please her parents, the rest to please herself. One of her countrymen was brave enough to allow her to make him her seventh husband. For a few months all went merry. Her fondness perhaps made her indiscreet. She told her husband all the faults and follies of his predecessors. She disliked some because they were sots, others because they were unfaithful to her. In short, she had no good words for any of them. The husband suspecting something and wishing to test the character of his wife, began to stay out late and to appear drunk when he returned. She at first reproached him, then began to threaten; but he continued to stop out late and to feign drunkenness, even more often than before. One night, when she believed him dead drunk and fast asleep, she took a lead button from the sleeve of her dress, melted it in a clay pipe, and approached the pretended sleeper to pour the molten metal into his ear. The husband no longer doubted her guilt, seized her, cried for help and gave her up to justice. She was first imprisoned and then tried, the dead bodies of her six dead husbands being exhumed, and all bearing witness against her by the discovery of lead in their ears and brains. On this evidence she was condemned to death."

Regarding spontaneous combustion he says: "There is no authentic case of true spontaneous combustion of the human body upon record. There is evidence to show that the bodies of habitual drunkards, more especially if corpulent, are more than ordinarily inflammable and hence that slight accidents, as the upsetting of a candle or a spark projected from a fire might lead to the ignition of the body and its destruction by fire."

In discussing the subject of starvation he recounts instances of enormous consumption of food. Thus Capt. Parry's Esquimaux devoured no less than thirty-five pounds of various foods, including tallow candles, during twenty-four hours. The usual allowance of the half-breed Canadian voyageurs is from twelve to twenty pounds of meat per day. On the other hand, there are instances of health and great longevity on a very restricted diet. Thus Cornaro lived for fifty-eight years upon only twelve ounces of solids (mostly vegetable) with fourteen ounces of light wine daily. Thomas Wood, the miller of Billericay, for eighteen years had remarkable vigor upon sixteen ounces of flour made into a pudding with water each day. But in order to maintain health and vigor it is needful for the average person to observe the following rules: "The food must be taken in sufficient quantity; it must be of good quality and digestible; it should be properly cooked; there must be sufficient variety; the intervals of feeding must not be too long."

An excellent index renders it possible to at once refer to any special fact stated in the work. These two volumes are alone worth half a year's subscription to the series of which they form a part.

Stimson's Treatise on Fractures.*

For many years Dr. F. H. Hamilton's work on Fractures and Dislocations has been without a rival. But at last one has appeared in the volume before us. In size, in copiousness of illustration and in exhaustiveness, it certainly exceeds the portion of Hamilton's work devoted to fractures. Being compiled last, it of course brings the subject nearer the present time. Yearly vast additions are made to the literature of this subject, so that the latest compiler has more evidence to establish certain disputed principles of theory or practice, or to controvert the same. No other portion of surgery presents a better field for the exercise of mechanical ingenuity, as well as wide surgical and medical knowledge. In no other department is the surgeon so likely to be the subject of suits for malpractice. So general has become the belief that all fractures should so be treated as to leave no deformity, that if such deformity follows the most skillful treatment the surgeon is often unjustly blamed if, indeed, he escape great expense and trouble in defending himself in court. Hence it follows that all the conditions relating to this subject are of very practical value to the general practitioner, and especially the general surgeon.

As in all of our best works, America, Great Britain, France, Germany, Russia and Italy are made to contribute to its contents. Then the author has added all suggestions thus far made by vivisections upon the lower animals. In short, he has gleaned from books, from medical journals in all languages, all that has a bearing upon the subject matter discussed. Of course he has so moulded it as to have it express his own views. In this consists the originality of the work. It is not apparent that he has made any great additions to our knowledge of the nature, diagnosis, or treatment of fractures. The style of the author is singularly attractive, as if he was an enthusiastic student of the subject he is endeavoring to teach to others. At random we turned to the chapter upon fractures of the skull. It covers twenty-three pages. He shows that these fractures are not rare, as 757 cases occurred in a total of 51,398. While they occur among all races, ages and sexes, they are most common in the male sex. They may be produced by blows, falls, etc. Those at the vault of the skull are mostly due to direct blows, and those at the base either from the extension of the former injury or from transmitted violence. The characteristics and symptoms of each class of fractures are fully pointed out and the best line of treatment indicated.

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*A TREATISE ON FRACTURES. By Lewis A. Stimson, B. A., M. D., with three hundred and sixty illustrations on wood. Philadelphia: Henry C. Lea's Son & Co. 1883. Pp. 598. Price, $5. For sale by John Willyoung, Detroit, Mich.

He calls attention to the means by which the base of the skull is strengthened to resist usual blows. Thus there are thick ridges radiating from the occipital condyles, while the intermediate portions are left comparatively thin and weak. Hence while the brain is protected from those forms of violence to which it is most frequently exposed, it is comparatively unprotected against others to which it is more rarely subjected. The orbit is the most frequent channel through which the base of the skull is fractured by direct blows. The slight character of the external wound in such cases is peculiar. Thus a testy old gentleman, irritated by some one behind him, made a backward thrust with an umbrella and drove it through the orbit of his tormentor into his brain. The majority of fractures of the base of the skull are due to an extension of fractures originating in the vault.

The important practical point of all injuries of this sort is the degree and character of the direct and indirect injuries to the brain coverings or substance. The symptoms are divided into those originating from injuries to the base and to the vault of the skull. Of the symptom of bleeding from the ears he thinks that while it is a valuable aid in diagnosis, its importance depends upon its continuance for some time. In case of such bleeding, we may safely conclude that there is a fracture of the base of the brain running through the petrous bone and opening up a communication between the cavity of the tympanum and some of the numerous vascular channels which surround this bone, or with an extravasation of blood within the cranium itself. Hewett from thirty-two cases found this symptom absent in half of the cases, but it was of great value when present. But as cases are recorded in which abundant hæmorrhage has followed severe injury to the head, in which the base was not fractured, the symptom is not pathognomonic. The same principles govern the importance of hæmorrhage from the mouth and nose.

Formerly a watery discharge from the ear or nose following an injury to the base of the brain, was regarded as an important symptom. But later researches render it less certain.

Concerning the use of the trephine, he shows that during the last century it was frequently done, but now with relative infrequency. This reaction against the use of this instrument he traces to two causes: the success of non-interference in some cases, and the failure of tardy interference in others. In the mining districts of Cornwell the practice of the surgeons has continued as in the last century. Hence in any case of injury to the skull the surgeon has to give a reason for not using the instrument rather than for using.

Mr. Hudson says that if the surgeon tells the patient and his friends that the skull is broken, the next inquiry is, "When are going to bore on?"

Chadborn trephined Phillip of Nassau twenty-seven times for epilepsy. It is said that trepining for epilepsy, headache and vertigo is common among the barbarous or semi-civilized peoples of Africa and the Pacific, who submit to it coolly, often two or three times, apparently without fatal results. Formerly in the United States the operation was frequently done for epilepsy, and its late abandonment seems to have been the result of its failure to relieve except in traumatic cases. Recent experiments by Dr. Leo show that by observing antiseptic precautions we may expect the danger from this operation to be diminished, if not entirely removed. Thus of twenty-six monkeys trephined, nineteen recovered of those treated antiseptically; four died of cold, one from chloroform, one from hemorrhage on the sixth day, and one from intra-cranial inflammation. All trephined at the same time without antiseptic precautions died of purulent meningo-encephalitis. Full descriptions are given for the observance of all the details of the operation, treatment, etc.

Lack of space prevents further notice of separate articles Unquestionably every wide-awake surgeon will take advantage of the author's labors in his behalf. On many points there is still ground for difference of opinion, but even these will be of service to all who are independent workers in this branch. General practitioners who are called upon for the treatment of these classes of cases will perhaps derive the greatest aid from this work. It is a good honest book, worthy of its author and the profession, and the science of surgery. The publishers have issued it in their usual substantial manner.

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Hart and Barbour's Manual of Gynæcology.*

This is the first number of the series of Wood's library for 1883. It is also the first of two volumes upon the same subject. In addition to these two volumes this library for this year will contain one volume upon Electro-Therapeutics, by Erb; two on the Revelations of the Microscope, by Dr. Wm. B. Carpenter; one on Diseases of the Œsophagus, Nasal Cavities and Neck, by Mackenzie, one on the Diseases of Women, by Fritsch; one on the Treatment of Wounds, by Pilcher; one on Hereditary Syphilis, by Sturgis; two on Legal Medicine, by Tidy, and one upon Veterinary Medicine, by Kirby. Thus it appears that the series covers quite an extended series of subjects, all of interest to the general practitioner.

If we are to judge from the volume before us, they will be handsomer than any preceding series, and the names of their authors are sufficient guarantee that their scientific value will be even greater.

The volume before us is profusely illustrated, having eight full-paged lithographs and one hundred and ninety-two wood cuts. Thus not an inconsiderable portion of the three hundred pages in the book is covered with these illustrations. While the artistic nature of these is quite limited, they are very instructive, more so than the same amount of word painting would have been. Believing that the anatomy and physiology of these organs furnish the only safe foundation for a study of their pathology, for the diagnosis of their morbid states and the means of relieving the same, the writers have devoted nearly one hundred pages to their elucidation. Their figures taken from sections of frozen bodies materially assist the student in comprehending the very complex anatomy of these parts. As to the real position of the uterus the authors sum up our present knowledge thus: (1) The uterus and bladder behave practically as one organ in position (*i. e.*, they move together), when the uterus is to the front. (*b*) The exact angle which the uterus takes with the horizon cannot be fixed, and knowledge on this point is not necessary. (*c*) The uterus lies normally to the front, but has a range of mobility of some sixty degrees. The posterior lip of the cervix is 1.5 to 3 cm. above the tip of the coccyx. By digital pressure the uterus can be elevated about 3 cm.

So clear have the authors made the examination of the pelvic organs that it seems as if the beginner should have no difficulty in making out ordinary cases.

Among the diseases described are pelvic peritonitis, pelvic cellulitis, and pelvic hæmatocele. The affections of the fallopian tubes and ovaries are described with great conciseness. Concerning Batty's operation for the removal of the ovaries, it is claimed "that it is still on trial. Gynæcologists have not yet agreed upon the exact indications for it, nor whether it is worth the risk. Up to 1879 the mortality was 37.1 per cent. Much of this may be credited to the inexperience of the operators and to the bad cases selected. Incidentally it has been known that the removal of the ovaries does not bring on the menopause, sexual appetite is not diminished, and no womanly attributes are in any way removed."

It is stated that ovarian tumors must be diagnosed from twelve conditions, viz., pregnancy, from fribroma uteri, from ascitic fluid, from fibrocystic tumors of the uterus, from parovarian tumors, from renal tumors, from liver hydatids, from pseudocyesis, and from distended bladder. The volume concludes with a description of a few of the diseases of the uterus.

If the second volume equals this, the work will prove very helpful to students of gynæcology, especially to those commencing the study.

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*A MANUAL OF GYNÆCOLOGY. By Dr. D. Berry Hart and Dr. A. H. Barbour. Vol. I, with eight plates and one hundred and ninety-two wood cuts. New York: Wm. Wood & Co. 1883. (Wood's Library Standard Medical Authors). Sold only by subscription. Price, $15 per year; 12 volumes.

Stewart's Pocket Therapeutics and Dose Book.*

This is the third edition of this little work. Hence it may fairly be said to have established itself in the favor of medical students and others who are in need of a reminder of the facts here presented. Owing to the thin paper, small type and peculiar arrangement of the material the greatest amount of facts are presented in the smallest space. The very handsome binding, as well as the other features of the mechanical execution of the work, are such as to add greatly to the attractiveness of the book.

The author only claims for his work the function of a reminder, to be referred to in certain emergencies and cases of doubt, and to stimulate further study and investigation in the treatment of cases.

The account of prescription writing is brief and to the point, so as to be very helpful to the student and such others as have not mastered the art of writing prescriptions. His classification of remedies is based upon that of Headland.

In alphabetical order he gives in parallel columns, side by side, the name of each drug, its maximum and minimum doses both by the old and the new system of weights and measures, and its actions and uses. Under each drug is placed its preparations. Thus we have exhibited in a minimum of space and placed in juxtaposition the essential facts to be remembered about each drug. There is no practitioner but will find this portion of the work occasionally of great assistance to aid his memory. It is the more important because it takes in all the newer remedies which have not as yet become officinal, and so won a place in the works upon materia medica. Of course these lists occupy the bulk of the volume. Following it he gives a list of substances used hypodermically, with their doses and modes of preparation. He also adds the accepted rules for administering medicines hypodermically. He does not forget that medicines are administered by inhalation, but gives full directions for the use of each, so also of nasal douches and certain simple eye washes.

In a very clear manner he presents the solubility of each medicine in water, in alcohol, in acids, etc. This table is one very helpful to all, as the solubilities of medicines are quite apt to be forgotten after a time. Of similar scope is the table upon incompatibles and antagonists. Besides we find tables showing the differential diagnosis of the eruptive fevers; an index of diseases and their remedies; a list of the signs of pregnancy; Marshall Hall's Ready Method in Asphyxia; general treatment of poisoning.

In parallel columns is given a list of the poisons, the symptoms of poisoning by each, and their antidotes and treatment.

Altogether the work has been prepared with great care for the persons who are desirous of this special help. Hence its popularity and eminent success. It is an elegant affair, creditable to all engaged in its preparation.

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West Virginia State Medical Society Transactions for 1882.*

The most noted thing about this volume is the preponderance of the element of protective medicine found in it. From the president's address downward the flavor of sanitary science is clearly evident. As is well known the president's address advertised far and wide the Columbus Medical College as an institution in which in specific cases its own published requirements had been grossly violated in the granting of diplomas. As a result of this demonstration it appeared that a diploma could be had for little knowledge and less money at this school. It is fuller this winter than ever. How much this school paid Dr. Reeves for his advertising of it we have not learned. Certainly he should have some reward, as clearly he was the means of its great immediate prosperity. Eighteen separate papers aside from the minutes of the meetings are found in this volume. As a whole, they are singularly interesting reading and withal instructive. The volume is issued in good style and will have an elevating influence upon the profession of that state and such others as read this volume.

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Dr. H. G. Cornwell, of Columbus, Ohio, sends us his chart of the Eye Symptoms and Eye Complications of General Diseases. It seems quite accurate and complete. It is sold for twenty-five cents per copy by H. C. McClelland & Co.

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*Pocket Therapeutics and Dose Book. By Morse Stewart, Jr., B. A., M. D. Third edition. Revised and enlarged. Detroit, Mich.: Geo. D. Stewart & Co. 1882. Morocco or cloth; pp. 240.

*Transactions of the Medical Society of the State of West Virginia. Fourteenth and Fifteenth Annual Sessions. Wheeling, West Virginia 1882. Paper, pp. 200.

HOLT ON "THE ETHICAL PROBLEM," as illustrated by the histories of the several New Orleans medical societies.

It is an effort to show that any written ethics in a medical society produces discord, isolation, etc., all that is evil in the profession, and that the cure for this is the abandonment of the written ethics. To our mind, while we accept the writer's facts, we deny that his conclusions have any logical connection with them. Beyond question if the members of a medical society are interested in the study of actual medicine, as illustrated by their individual observation and experience, there is a bond by which they can make a medical society and do good in the profession about them. Obedience to the written ethics of the American Medical Association will produce just such a society. It is also true that if the members of a medical society are mainly intent upon seeing how much bother they can give the brother members of a society, they can use this written code as a pretext on which to operate. Earnest professional work is the only foundation for a prosperous medical society; the more the members work to help each other, the less will they need to direct attention to the written code. The code will be written in their lives so that all outsiders can see and follow it.

CHISOLM ON "THE BROMIDE OF ETHYL." An eight-page reprint from the Maryland Medical Journal.

This anæsthetic, it will be remembered, was tried by surgeons several years ago and found wanting, as patients died too often. Chisolm thinks it was used for too long a period. He claims to have obtained from its use wonderful results during short operations. He says: "Can anything be more brilliant in surgery than a successful operation for squint, where an ugly deformity of years' standing is promptly, thoroughly, safely and surely removed in less than one minute of time—fifty-two seconds—for ethylization and operation." Our first impression on reading this reprint was that the author was more intent upon self glorification than anything else.

HOLTZ'S REMARKS ON ONE HUNDRED AND SEVENTY-Seven Operations for Entropium and Trichiasis." An eight-page reprint from the Archives of Ophthalmology.

The writer shows by these reports of his cases that his operation given to the profession several years since has abundantly justified his claims for it. The essential features of this operation are these: "The skin of the eyelid is incised transversly in the line of the upper border of the tarsus of the upper lid; the muscular layer covering that border is excised about three or four mm. in width, and the cutaneous edges of the incision are brought in close adaptation with the cartilage by sutures which are passed right through the border of the tarsus and the tarso-orbital fascia." The author's claims are well supported.

BLODGETT ON THE MANAGEMENT OF CHRONIC Inebriates and Insane Drunkards. A twenty-four-page paper from the report of the last Social Science Convention.

The writer directs attention to the condition of the violent drunkard. There is absolutely no place for him but in a prison or an insane asylum, and to this latter place he cannot be sent for drunkenness. A special place he thinks should be provided for these wretched people.

ALLEN ON "THE LAW OF HUMAN INCREASE." A ten-page reprint from the Popular Science Monthly.

This law he defines thus: "It consists in the perfection of structure and harmony of function; or, in other words, that every organ in the body should be perfect in structure, and that each should perform its legitimate function in harmony with all others."

COE ON "FIBROMATA AND CYSTO-FIBROMATA OF the Ovary." A forty-six-page reprint from the American Journal of Obstetrics.

In a very scholary manner the author places before us the principal facts at present accepted by gynæcologists relating to these morbid growths.

DALY ON "NASO-ANTRAL CATARRH AND ITS TREATMENT." A five-page reprint from the Archives of Laryngology.

Two cases of this rather rare affection are fully described with the writer's method of treatment.

HART'S CRITICISM UPON "NORRIS'S THIRD CORPUSCLE OF THE BLOOD." A twelve-page reprint from the London Medical Record.

It concludes that the corpuscle of Norris is artificially produced, and hence that we still have but two blood corpuscles.

COLES ON "A LARGE FIBRO-CYST OF THE UTERUS and Ovarian Cystoma, Co-Existing with Pregnancy; Operation; Recovery." A sixteen-page reprint from the St. Louis Courier of Medicine.

A careful study of an interesting case.

GREEN ON "THE ORIGIN AND PROGRESS OF THE American Academy of Medicine." A sixteen-page paper published by the academy.

The writer's task is well done.

DETROIT LANCET.

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Original Communications.

Adynamia—Its Causes and Treatment.

BY F. E. STEWART, M. D., PH. G., PHILADELPHIA, PA.

I. INTRODUCTORY.

FOR several years past I have been experimenting with certain methods for the renewal of vital energy of feeble people, broken down by overwork or worry, by a combination of food, hygiene and medicine. This condition is characterized by certain prominent symptoms for which treatment is frequently asked, and it seemed to me that by grouping under some generic name, and studying them together as a whole, a comprehensive view of their causes might be more easily obtained. These symptoms are habitual constipation or diarrhœa, anæmia and dyspepsia. This class of cases are chiefly men who have overworked their brains in the pursuit of business or other ambition, or who have wasted their energies by excesses of any kind. It includes women broken down by the cares and responsibilities of their station, or those who have been subjected to some terrible mental strain that has resulted in impaired health. It also includes all cases of lost energy, whatever the cause.

I do not wish to be thought of as putting forward anything new or remarkable, for what I have to say has been put in practice by others, and the principles of treatment here advocated are used in the practice of every good physician, whatever his therapeutic creed. My purpose is one of classification and of treatment, the former for the sake of the latter, and the latter that I may direct the attention of the profession to some of the more recent additions to the materia medica as therapeutic agents in dealing with these low conditions of the system known under the generic name adynamia.

Adynamia means, as its name implies, a want of force. It is a condition of deficient vital energy. I propose, then first to treat of vital energy; second, how it may be lost; third, some of the conditions brought about by a want of it; and fourth, the treatment of adynamia, including first the conditions brought about by it, and second, the treatment of the causes.

II. VITAL ENERGY; WHAT IS IT?

Modern science teaches us that vital force is derived from the lower forces of nature, and is correlated with chemical and physical forces. Vital force, then, is but one of the forms of the all prevading force of the cosmos. It is the same force, but, in various modifications, that warms our dwellings, flashes in the electric light, carries messages on lightning wing from continent to continent, and is the life of the animals and plants around us. The energy of our bodies is this universal force, only in that higher form known as vital energy.

There was a time when matter was supposed to be destructible. When a piece of paper was thrown into the fire it seemed to be consumed—to pass out of existence; but now we know that it is merely decomposed into its proximate elements, and the matter of which it was composed has only changed its form, and remains in all this change the same quantity of matter. Creation or destruction of matter, then, never occurs, and we have every reason to believe that the sum of matter in the knowable universe is always one and the same. Now, it is the doctrine of modern science that the same is true of force; it cannot be increased, it cannot be diminished, except by the same power that created it. A railroad train is approaching a station with immense velocity, the brakes are applied, and in a few moments it is at rest. Two cannon balls of equal size and velocity meet in the air and fall motionless. What has become of the force? The immense energy of these moving bodies seems to have passed out of existence. But it is not so. It has changed to heat, and that heat may be calculated, and an equal amount of heat may be changed back again into an equal amount of momentum. Heat is now known to be a form of motion—that is, molecular motion. The mass motion of the moving body has been changed into a motion of the molecules. Heat, light, electricity, magnetism, chemical affinity, and mechanical force are transmutable back and forth; but in all these changes the sum of force remains the same.

"The mutual convertibility of forces with each other is called correlation of forces; the persistence of the same amount, amid all the protean forms, is called conservation of force."*

Man obtains his vital energy from his food. It comes to him from the sun, which is the source of all the force of this world. The physical force of the sun as manifested by light and heat is converted into vital force by a wonderful process that occurs in the leaves of plants. It is then raised to higher and higher forms by fresh accession of force through various decompositions until it reaches that highest form manifested in animal life.

Le Conte illustrates this very nicely by representing matter as on four planes of material existence raised one above the other. These are:

4. Animal kingdom.
3. Vegetable kingdom.
2. Mineral kingdom.
1. Elements.

He also calls attention to the fact that there is a special force whose function it is to raise matter from each plane to the plane above, and to execute movements on the latter. Thus it is the function of chemical force to raise matter from 1 to 2, as well as to execute all the movements, back and forth, by action and reaction, and by so doing to produce all the phenomena known as the science of chemistry.

It is the function of vegetable life force to raise matter from two to three and perform all the phenomena on that plane that constitute the science of vegetable physiology, and it is the prerogative of animal life force to raise matter from three to four, and to perform all the movements on that plane which constitute the science of animal physiology. But there is no force in nature capable of lifting matter from elements to the plane of animal life without stopping and receiving a fresh accession of force, of a different kind on the intermediate planes. Plants can not feed on elements, but on chemical compounds; and animals cannot feed on minerals, but on vegetables.

Now according to Le Conte the physical force (light) of the sun, is changed into life force in this way: The atoms of which matter is formed at the moment of their separation from previous combinations are endowed with a peculiar and powerful affinity. The reason for this seems to be that when the elements of a compound are torn asunder, the chemical force which previously bound them, is set free, ready and eager to seize upon whatever comes in its way. This condition of atoms when recently separated from previous compounds is well known and is described as the nascent state. It is an exalted state retained but a little while being quickly changed into some other form of force. The plastic matters of which vegetable structure is composed are of two kinds—amyloids and albuminoids. The amyloids, or the starch and sugar group, consist of carbon, hydrogen and oxygen; the albuminoids of carbon, hydrogen, oxygen and nitrogen. The food out of which they are elaborated is carbonic acid, water, and ammonia (CO_2, H_2O, and NH_3). In the presence of chlorophyl, and living protoplasm, these chemical compounds are torn asunder and exist in the nascent state, the excess of oxygen, or of oxygen and hydrogen is rejected, and the remaining elements rush together and form organic matter. The physical force of the sun seems to be changed into nascent chemical force by the decomposition of the chemical compounds under the peculiar conditions present, forms organic matter, and reappears as vital force. It will be seen then —and this is a very important point—that vital energy is generated by decomposition. "Light falling on green leaves is destroyed or consumed in doing the work of decomposition; disappears as light, to reappear as nascent chemical energy; and this in turn disappears in forming organic matter, to reappear as the vital force of the organic matter thus formed." "In the case of amyloids, oxygen excess, falling or running down from plane No. 2. to plane No. 1, generates force to raise C. H. and O. from plane No. 2 to plane No. 3. In the case of albuminoids, oxygen excess, and hydrogen excess, running down from No. 2 to No. 1, generate force to raise C. H. O. and N., from No. 2 to No. 3. To illustrate again: As sun-heat falling upon water disappears as heat, to reappear as mechanical power, raising the water into the clouds, so sun-light falling upon green leaves disappears as light, to reappear as vital force lifting matter from the mineral into the organic kingdom."

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*Correlation of Vital with Chemical and Physical Forces, by Joseph Le Conte, Professor of Geology and Natural History in the University of California.

Now we have seen how vital force is generated in the plant, and that it is a product of decomposition. Plants become the food from which animal existence is elaborated, to raise matter from the plant life to animal life, and to perform the movements of animal life a fresh accession of force is necessary. This, too, is the product of decomposition. Animals derive their vital force from the decomposition of their food, and the decomposition of their tissues.

Animals are distinguished from vegetables by an incessant decay in every tissue. This decay is in proportion to their activity. It necessitates constant repair. There is going on, therefore, all the time a process of pulling down and repair. This process is called the process of tissue metamorphosis.

The growing animal requires food for three purposes: 1st, for the building of tissues, 2d, for the repair of tissues, and 3d, for the generation of force. But when he reaches the state of maturity only the two latter remain. The animal requires force for two purposes: 1st, to carry on the process of tissue repair, and, 2d, to execute those movements which together constitute his functional activity. He derives his force from the decomposition of his food and tissues. This food and tissue decomposition is in direct proportion to his functional activity. That his food may be decomposed it must first be converted into blood. This requires its digestion, and organization into blood. Digestion and blood building are complex processes requiring the continual use of force. The tissues are built from the blood by a peculiar selective process by which each tissue selects from the blood appropriate material for repair similar to the material of which it is composed—bone selecting bone material, muscles selecting muscle material, and brain and nerve the materials of which they are constructed. All these processes require vital force, and that force is obtained by the decomposition of the food and of the tissues.

Finally, the food of man is mixed, partly albuminoid, and partly amyloid. The former is used for tissue building, and the latter for force making, through there is probably more or less excess of albuminoids beyond what is required for tissue repair. Man's vital energy, therefore, is derived partly from the decomposition of the tissues, but principally from the decomposition of amyloids and fats.

There are, therefore, four ideas underlying this paper, 1st, vital force is correlated with physical and chemical force; 2d, vital force is always the product of decomposition; 3d, vital force is in proportion to the proper digestion and assimilation of food; 4th, vital force is dependent upon functional activity.

III. HOW VITAL ENERGY MAY BE LOST.

As we have seen, vital force is the product of food and tissue decomposition, and that by the decomposition of food and tissues the material of which the food is composed is raised to the plane of human flesh and blood, and the functions of human life are performed. Food, healthy tissues, and the decomposition of both, is necessary for the generation of vital force, which, like the steam in the engine, is so essential to the life and movements of the human machine; absence, then, of either, will result in a loss of vital force.

Adynamia may be caused by a want of functional activity. This is illustrated by the loss of vital energy that occurs in people who are engaged in a life of sedentary habits. As before said, the generation of vital force depends upon food and tissue decomposition. Now this decomposition is dependent in turn on exercise of the functions. Functional exercise is indispensable to health. True, the heart beats, and respiration is maintained when the body is at rest, and a certain amount of functional activity always exists during life; but this is not sufficient for the maintenance of the tissues and blood in a healthy condition, and incapacity for generating vital force is the final result of neglect of proper exercise. People who engage in sedentary occupation are apt to suffer with general debility, dyspepsia, and obstinate constipation, due to a lack of sufficient vital force to carry on the functions of life properly.

We know that unused muscles pine away, or become pale and powerless, without exercise. And what applies to the muscles applies equally to every organ in the body. On the other hand, the organs are developed by use. Functional activity is essential to bodily health, and a life of indolence, long persisted in, will cause a loss of vital force.

Closely related to this is the fact that too much food in proportion to functional activity may result in adynamia. This is illustrated in the case of plethora caused by overfeeding and want of exercise, in which the blood becomes loaded with excess of material for which there is little demand. Gout is another illustration of this condition. Here it is due to the absorption of too much albuminoid food. "When a man day after day swallows more nitrogenous food than is wanted for the repair of his tissues, the following results may be expected, with variations dependent upon his original constitution. If the digestive solvents are weak and scanty, the excess passes through the canal in an undigested state, and is partially decomposed there. Thereon ensue all sorts of abdominal derangements, which, however, have the advantage of getting rid of the offending matters. If, on the other hand, the stomach secretes vigorously on being stimulated, then, indeed, the excess is digested and absorbed, and is subject to the future changes consequent on assimilation. An active out-of-door life neutralizes this in some measure by augmenting oxidation; much of the albumen goes to form glycogen, and acts as a fuel for the maintenance of muscular force. The balance is wasted in an unexplained way, and does not necessarily injure a hardy frame. The violent muscular exertion and high training needful for oxidation being inconsistent with the habits of intellectual society, a man in the prime of life who puts too much meat into a good stomach habitually retains in his blood an excess of uric acid, into which the nitrogenous waste converts itself. Uric acid in the blood has been distinctly traced as the essence of gout."*

But probably the most frequent of all causes for adynamia in this country is mental over-work, and worry, and its effect on the digestion, blood building and tissue metamorphosis.

Now it is a well known physiological fact that the funtional activity of an organ depends upon the presence of blood and vital force. It is also well known that when we exert one organ more than another, it determines the blood and force to that organ and draws it off from others. An immense amount of blood and force is used up in the functional activities of the brain. Now when the mental processes are more than usually active, or are continued uninterruptedly for a long period of time, the blood and force are called there in proportion, and the destruction of tissue, blood and vital force is to the same extent augmented. The other organs are thus deprived of nourishment and consequently suffer. The results are that the muscles became weak and flabby, functional derangements of various organs occur, the digestive organs refuse to perform their work, the blood becomes impoverished and the tissues starve from lack of material to supply their wants. All sorts of disorders ensue, and the body is left an easy prey to disease.

Dr. Bain gives an approximate idea of the demand made by the brain on blood and vital force. He says: "There is a possibility of giving, approximately, at least, the amount of blood circulating in the brain in the ordinary waking state; and, as during a period of intense excitement, we know that there is a general reduction, almost to paralysis, of the collective vital functions, we could not be far mistaken in saying, that, in that case, perhaps one-half or one-third of all the oxidation of the body was expended in keeping up the cerebral fires."*

Now what is true with regard to the brain is true in relation to any other organ in the body—its undue functional activity is to the detriment of the general health and results in a loss of vital energy. Witness the results of exhausting muscular exercise, of gluttony, or of the over-indulgence in the gratification of the passions, or of any desire that takes a bodily organ or set of organs for its performance. In such cases as in the instance of the brain, blood and tissue, vital force is consumed by functional activity, and if the activity of the function is excessive and long continued, it is at the expense of the other organs of the body, and a train of results follow of various kinds according to the organs most weakened by this deprivation.

Another cause for the loss of vital force is the deprivation of food. That this is a cause more common than is supposed there is good reason to believe. In our large cities, especially, it occurs. Here thousands live in the city boarding houses, where unfortunately too often is served food insufficient in quantity and of poor quality, and it is frequently so poorly cooked as to be unpalatable. The result is that many people with delicate stomachs are unable to eat the quantity of food necessary for health, or, if it is eaten, dyspepsia follows, the food is not digested and becomes of no avail in the building of tissues and the generation of vital force.

Again adynamia may be caused by disease, chronic or acute. Disease calls for an immense supply of blood and vital force for tissue and force repair. This is especially true of the fever process where the demand is excessive. In such cases combustion of food and tissue is very rapid and must be met with corresponding supply, or death from asthenia is likely soon to result. Adynamia, or a predisposition to it, may be inherited, and is a frequent accompaniment to the various inherited constitutional cachexiæ.

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*Encyclopedia Britanica, gout.

*Alexander Bain, LL. D., Professor of Logic and Philosophy in the University of Aberdeen in The Correlation of Nervous and Mental Energy.

Finally, adynamia may be caused by hemorrhages or other exhausting discharges, but a consideration of these causes will not claim especial attention in this article, though what is said with regard to its treatment equally applies to the condition however caused.

IV. SOME OF THE RESULTS OF ADYNAMIA.

Dyspepsia, diarrhœa, habitual constipation, and anæmia, are four prominent symptoms of a loss of vital energy, and as they are often presented to the physician for treatment a consideration of them here may not be out of place.

Dyspepsia.—By the term dyspepsia I mean the indigestion of food and the phenomena attending it. When for any reason the digestive organs are deprived of blood and vital force, they cease their functional activity—the liver refuses to secrete bile, the gastric glands stop action, and all the digestive juices are scanty and impaired. Then follows the indigestion of the food and a train of morbid phenomena resulting therefrom. When the brain, for example, calls for more than its share of blood and vital force, dyspepsia is one of the results that follow. Deprivation of blood and force affects the alimentary canal in various ways. In the first place, blood is essential to the repair of the tissues of which the digestive apparatus is built. Again, it is from the blood that the digestive juices are manufactured, and, finally, blood-making, tissue repair and the secretion of digestive juices all depend upon vital force for their performance. The alimentary canal is a tube about thirty feet long, divided into different compartments for special kinds of digestion. It is lined inside with mucus membrane, and provided with an external muscular coat whose function it is to propel the food from compartment to compartment, and finally to evacuate what is left after digestion and absorption at the other end. This propelling movement of the alimentary canal is called its peristaltic action. Connected with the apparatus are the various glands for secreting the digestive fluids. Now, not only do these glands depend for their activity on the presence of blood and vital force, but the muscular coat of the canal also, and deprivation results in loss of peristaltic action. The food, consequently, is neither digested nor propelled along the alimentary canal. It therefore ferments and gives rise to the symptoms called dyspepsia, and its non-evacuation is called constipation.

Indigestion not only results in symptoms indicative of fermentation, such as belching of gases, etc., but a loss of vital force results. This is due to the fact that fermentation is not the kind of decomposition that generates vital force. The process of fermentation is described by Le Conte in the following words: "The plastic matters out of which vegetable tissue is built, and which are formed by sunlight in the leaves, are of two kinds, viz., amyloids (dextrine, sugar, starch, cellulose), and albuminoids, or protoplasm. Now, the amyloids are comparatively stable, and do not spontaneously decompose; but the albuminoids not only decompose spontaneously themselves, but drag down the amyloids with which they are associated into concurrent decomposition—not only change themselves, but propagate a change into amyloids. Albuminoids, in various stages and kinds of decomposition, are called ferments. The propagated change in amyloids is called fermentation. By various kinds of ferments, amyloids are thus dragged down step by step to the mineral kingdom, viz., to carbonic acid and water. The accompanying table exhibits the various stages of the descent of starch, and the ferments by which they are effected:

1. Starch. }
2. Dextrine. } Diastase.
3. Sugar. }
4. Alcohol and CO_2. Yeast.
5. Acetic acid. Mother of vinegar.
6. CO_2 and H_2O. Mould.

When the food ferments in the stomach it is decomposed downward into various chemical elements and gases instead of being raised upward into tissues. The gases which are set free give rise to flatulency and belching; some of the sour products are absorbed into the blood and produce various disturbances, and other portions pass into the intestines and set up a diarrhœa by their irritating effect on the mucous membrane with which they are lined. Thus the food becomes a poison instead of a nutrient.

But diarrhœa seems to be the exception rather than the rule in dyspepsia. More often a state of persistent and obstinate constipation is the result, occasionally, it may be, alternating with diarrhæa. This is apt to be the case for the reason that the deprivation of blood and force renders the intestinal mucous membrane sluggish to the stimulating effect of irritants, and the irritating matters pass through the bowels without stimulating them to action.

Habitual Constipation.—In health the contents of the large intestine are usually evacuated once in twenty-four hours. To this rule there are exceptions, however. It is the habit of some people to have an evacuation two or three times daily, and, on the other hand, there are cases where the act occurs only on every second or third day without causing any of the discomforts of constipation. In other cases the defecation is delayed two or three days but when it occurs the amount is ample. A daily evacuation, however, is not positive proof that habitual constipation does not exist, for it sometimes happens that a daily evacuation occurs, yet the act is incomplete, the fæces are dry and hard, and the patient suffers all the morbid phenomena accompanying this condition. Again, a person may suffer from habitual constipation, and yet occaionally have diarrhœa due to the irritation caused by the passage of undigested food from the stomach into the small intestines. This diarrhœa, however, does not, as a rule, empty the lower bowel of the accumulation of fecal matter likely to be deposited therein from the previous costive condition.

The morbid phenomena most frequently attending habitual constipation are a feeling of weight or pressure in the perineum, abdominal distension and uneasiness, flatulency and colic. There is loss of appetite, derangements of the stomach, and of the liver, nausea, acidity, and belching. The patient complains of giddiness, and often presents a sallow complexion. Continued for a length of time other morbid symptoms follow; the mind becomes dull and confused, there is pain in the head, flushing of the face, palpitation of the heart, and a general feeling of indisposition. In women there is added to this list of evils neuralgic pains, cold feet and hands, and various uterine disorders and menstrual troubles.

These phenomena are partly the direct result of the constipation, and partly caused by the condition that gives rise to it. The feeling of weight and pressure in the perineum, distension, and general uneasiness is caused for the most part by the accumulation of flatus and fæces in the large intestine. This portion of the alimentary canal serves as a temporary depot for the accumulation of fecal matter, thus preventing the necessity of its immediate evacuation. When the bowel is torpid and the muscular coat refuses to perform its function for lack of vital force, the fecal matter continues to accumulate without being passed off. In health the rectum is for the most part empty, and endowed with a peculiar sensibility which gives warning of the presence of fæces and the desire to evacuate it. Owing to the difficulty experienced in the act of defecation, or the mind being preoccupied, the calls of nature are neglected, until the rectum acquires a certain tolerance for the fecal accumulation, and in its place remains only a dull sense of weight and pressure. If the accumulation of fæces and flatus be allowed to continue it finally ends in paralysis of the bowel from distension, in the same manner that the bladder is paralyzed by distension from an accumulation of urine.

Anæmia.—If the food is not digested the blood becomes impoverished. This is due to the continual demand upon it from tissue waste without corresponding supply. The process of blood building is called sanguification. Like the other vital processes it requires the use of vital force. Indigestion and adynamia combined may thus prevent the manufacture of good blood. That this is the fact seems to be proved from the absence in the blood not only of the materials for tissue supply, but for the red corpuscles also.

Anæmia means deficient and impoverished blood. It is characterized by a morbid diminution of red corpuscles and iron. The disease formerly called chlorosis or green sickness is but another form of it. This form occurs in young girls, and it is characterized by a peculiar vitiated appetite craving indigestible and innutritious articles such as chalk, slate, and coal.

The presence of anæmia is denoted by symptoms of general debility. The face is usually pale and emaciated, though anæmia may exist without notable palor, and even with a rosy complexion, and apparent full habit. As it progresses the patient becomes dissatisfied and irritable, and is in continual worry and misery. A dread of impending misfortune,or of imaginary disease haunts him in the day time, and at night unrefreshing sleep with troubled dreams are his lot. Finally the low spirits may end in hypochondria, melancholia and insanity.

The special symptoms of this condition are enfeebled circulation of the blood attended with a small, weak and easily compressible pulse; the bloodless extremities are cold, and shivering occurs at the slightest exposure. Frequent attacks of palpitation of the heart induce the patient to believe that that organ has been attacked by disease. Strength of will and purpose is impaired and the slightest mental exertion is attended with fatigue. All buoyancy and light heartedness are gone, and in their place a most painful sense of languor and indolence asserts itself. Disordered digestion causes gases to form, which give rise to flatulence and uncomfortable bloating. Neuralgia often adds to the suffering, especially in women, and a state of persistent obstinate constipation is frequently present.

It will be observed, then, that a very similar set of symptoms occur in dyspepsia, constipation, diarrhœa from indigestion, and in anæmia, and that in all these conditions the cause is a similar state of the system more or less modified by circumstances. As this state of lost vital energy is a common characteristic, I have classed all the symptoms under the head of adynamia, and in its treatment I propose to consider adynamia a disease of itself, of which habitual constipation, diarrhœa, anæmia, plethora, and dyspepsia are the most prominent symptoms.

V. TREATMENT OF ADYNAMIA.

The principles to be observed in the treatment of adynamia are: 1st, measures to stimulate the functional activity of the alimentary canal; 2d, proper food for the repair of tissue waste, and to generate force by its combustion; 3d, agents to promote the nutritive processes and improve the condition of the blood. Among the latter may be classed, *a*, bitter tonics, iron, and the chalybeate waters; *b*, the electro-vapor bath; *c*, massage; *d*, exercise and rest. 4th, treatment of the mental causes of adynamia.

I have dropped the use of cathartics in the continuous treatment of conditions of low vitality when the object is to restore a normal activity to the alimentary canal. This I generally succeed in accomplishing by the use of cascara sagrada in small and repeated doses continued for several weeks or longer as the exigencies of the case may demand. This drug usually stimulates the digestive process in a remarkable manner, increasing secretion and peristaltic action and thus producing a laxative effect.

Cascara sagrada, or sacred bark, is the bark of Rhamnus Purshiana. It was introduced to the notice of the medical profession by Dr. Bundy, of California, but its present extensive use is due to the enterprise of Messrs. Parke, Davis & Co., Manufacturing Chemists, of Detroit, Michigan. Its nature and application as a therapeutic agent are well described in the words of Dr. Bundy as follows:

"In presenting this paper on cascara sagrada as almost a specific in that most frequent and subtle malady—constipation—it will be necessary for me to refer to the causes of it, and reason how this agent is curative in that direction. Habitual constipation is the only form to which I shall direct attention, as that phase which arises as a symptom of other difficulties, such as obstruction, etc., has no bearing on the subject in hand.

The nature of the diet; deficiency or a faulty composition of the intestinal secretions; disordered glands that pour their secretions into the intestines; impairment of muscular power, which leads to deficiency in their propelling power, which may result from nervous or mechanical influences; congestion of the portal circulation; normal secretion of intestinal juices interfered with; deficiency in biliary secretions of a healthy character; congestion of mucous membrane of intestines, and last and the most frequent causes—resisting the calls of nature from carelessness, or circumstances that prevent the obedience at the proper time, etc. The constant habit of taking cathartics is a source of much mischief, and if we were treated in the manner that the gastro-intestinal tract generally is, we, too, would fail to work, and find ourselves prostrate. I employ a fluid extract of the cascara, using one ounce in a four ounce mixture, in combination with other remedies, or alone, as the case may require. It acts upon the sympathetic nervous system, especially upon the solar plexus, stimulating the nutritive and assimilative forces, increasing the digestive processes generally. It acts upon the secretory system in a marvelous manner, especially where the secretions are deficient and perverted; and this seems to be one of its special indications. When you have a case in which the constipation depends upon the above condition:

℞ Fl. ext. cascaræ sagradæ.........
Syrup simplicis, (or ext. malt)....
Aquæ..........................āā ℥ j.

M. S. A teaspoonful three or four times daily, is all that is wanted to perfectly regulate the want of, and to change the perverted secretions. It acts upon the hepatic secretion and circulation peculiarly, but more positively than anything I ever gave before; peculiarly, because it produces no impression upon the system in the way of nausea (or derangement of any other function), pain or inconvenience whatever, and my patients speak of it in the highest terms, as being as nice to take as it is pleasant in its action. Constipation dependent upon defective, or perverted or excessive action and secretion of the liver, as before stated, yields at once to its action. It acts as a tonic with the most marked effect upon muscular tissue generally, but more especially upon the stomach and bowels, remarkably increasing the tone and activity of the above secretion. It is the remedy where the tone, as stated, is deficient, and where it has been produced by constantly taking pills to remove the constipation, which only is increased by such a measure. This condition is readily changed, and a healthy action set up; muscular power and tone restored, and this done, the propelling power or force being regulated, it changes the character of secretions by regulating the action of neighboring visceral glands, as well as those of the upper portion of small intestines, overcoming congestion of the mucous membrane of the bowels and stomach, completely restoring their tone and muscular power. To cure cases of constipation, the result of carelessness, requires perseverance on the part of the practitioner, and a strict course prescribed as to avoiding cathartics, and attention to calls of nature promptly."

And in a later article he is still more specific:

"But lately introduced to the profession, the physiological action of this drug requires further elucidation. Its tendency is towards the glandular system, especially the secretory. I believe it to be the peer, and in many cases the superior of chionanthus; its action in stimulating the secretions of the liver, bowels, and the entire alimentary canal is most satisfactory; it influences the ganglionic (vegetative) system, and through this stimulates all the organs under its control; it especially influences the portal circulation, and thus is explained its wonderful effect upon hemorrhoids. In giving it for this affection, it must be given in small doses, sufficiently small to fall far below catharsis. It increases peristalic action by its tonic and stimulating properties upon muscular fiber, producing contractility and tonicity. When its properties have become thoroughly known, its range of applicability will be found to be very wide. Were it a remedy for no other malady than constipation, its value could not be estimated. In chills, or remittent fever, doubtless owing to its action on the liver, it seems to act charmingly, and will prove a valuable adjunct in that direction. I have at the present time three cases of remittent fever, in which I never saw anything act so promptly and kindly, as a hepatic and antiperiodic, as the cascara. I give it in small doses: fluid extract gtts. xx, every two hours, until it acts upon the bowels. With aconite and gelsemium, it arrested the disease in forty-eight hours. In cases in which there is jaundice, dry skin, scanty and high-colored urine, with marked dullness, and tendency to coma, cascara has in my hands been a perfect success."

Cascara sagrada, therefore, is aptly called a "tonic laxative," because of its physiological action, which seems to be directed to the vaso-motor nerve system, stimulating the secretory apparatus of the alimentary canal, and increasing the peristalic action of the intestines, thus acting as a tonic to restore to the bowels their normal activity. *Its successful use depends entirely on the manner in which it is employed, and that should be in small and repeated doses.*

With regard to the food several considerations present themselves: 1st, the food should contain a proper portion of nitrogenous elements to supply tissue waste; 2d, a due amount of amyloids and fats is necessary for the generation of force; 3d, the food should be properly cooked, of good quality, and of a kind easily acted upon by the digestive juices. It is not my purpose to go into a large dissertation on food and diet, leaving these subjects for works which treat fully of them, but to call attention to an article introduced by the writer in 1879 as an agent specially adapted for the repair of tissues and the generation of force. Healthy blood is essential to proper tissue repair and force genesis, and healthy blood is the product of good food, normal digestion and assimilation. But in many of the cases of adynamia which we are called upon to treat, normal digestion and assimilation are impossible. How than shall healthy blood be manufactured for tissue repair and the generation of force? This question suggested to me the employment of blood already manufactured and introduced into the system as a food either by the mouth or rectum. I employ the arterial blood from picked steers, which are killed for the purpose by bleeding them to death. This is accomplished by sticking the animals in the aorta, immediately above the heart. The blood is then "whipped," to keep it from clotting, and dried in shallow pans at a temperature of 110°F. This low temperature prevents the albumen from coagulating. The blood is then ready for use. It is soluble in water and as it has lost seven-eights of its weight by evaporation, that amount of water added restores it to blood of normal density,

With regard to the therapeutic value of sanguis bovinus exsiccatus, for that is the name chosen to designate it, much has been written. The following letter received from Dr. O. H. Allis, Surgeon for the Presbyterian Hospital, Jefferson College Hospital, etc., contains testimony that has been amply verified in the hands of many others besides the writer. I append it as an illustration of its effects in adynamia from exhaustion:

1604 Spruce Street,
Philadelphia, Sept. 15, 1880.

Dr. Stewart:

Dear Sir—When your sample of blood came to me for trial in the Presbyterian Hospital, I had but two desperate cases upon which to try it. These, taken by themselves, will prove but little, but when coupled with testimony from other physicians and surgeons may have considerable significance.

The first case was that of a man 70 years of age. He was very feeble and lay upon a water-bed to avoid bed sores. There was a slough in the perineum which partly involved the scrotum, and urine dribbled from this region. He was too feeble even to justify an examination, and my only expectation was to make him comfortable until death should relieve him. I put this man at once upon the blood, giving him a tablespoonful three times a day at first, and increased to an ounce three times a day. It seemed to be just what he needed. He soon gained strength, became cheerful, and could walk about in two months.

The second case was even more desperate. A young man 23 years of age had entered the hospital with necrosis of the lower third of the femur with chronic synovitis of the knee joint and secondary involvement of the contiguous tibia. There were openings leading to the femur and from these exhausting offensive discharges, sometimes bloody, kept the poor fellow in a condition that forbade any reasonable hope from amputation. Two of my colleagues concurred in my view that possibly he might be a gainer from the attempt; but before resorting to this I ordered his urine examined. This proved to be largely albuminous, and Bright's disease was declared to be present by Dr. Slocum, who first examined it, and by Dr. Seiler, the pathologist of the hospital. From day to day the patient failed. He could retain but little food, often vomiting his milk, beef tea and medicines. When in his lowest state, having just had a hemorrhage from the thigh that rendered a constant watcher necessary, vomiting almost everything but milk, and often rejecting that, he was placed upon the blood—at first a tablespoonful, and by degrees increased to an ounce three times a day. In not a single instance did he vomit the blood (he could not take it per anum as it produced a diarrhœa) and in a few weeks his appetite returned, he soon left his bed for a chair, and later was able to go on crutches about the ward. There was no noticeable effect upon the amount of albumen.

My views of the blood are that it must be easy of assimilation, and I shall be ready to give it a further trial in case of exhaustion and vital depression, mal-assimilation—cases in which the important problem is to give food. Very respectfully,

Oscar H. Allis, M. D.

In some cases the use of cod-liver oil is more beneficial than that of the desiccated blood. It is indicated as a force generator and also as a tonic. The former is due to its position as a fat containing biliary products which particularly fit it for assimilation, and the latter to certain tonic principles which it contains.

Among the bitter tonics the preparations of cinchona and of nux vomica are used with advantage. A most excellent prescription is the following:

℞	Quiniæ sulph.	gr. xxiv.
	Acid. muriat. dil.	ʒ j.
	Strychniæ sulph.	gr. ss.
	Tr. cardamon. comp.	℥ j.
	Aquæ, q. s., ft.	℥ iij.

M. S. Teaspoonful in water before meals.

Of the preparations of iron, that made by dialysis often proves an excellent one. A combination of dialyzed iron and cod-liver oil was suggested some time since by the writer, containing also glycerin and catawba wine, of which the dose is a tablespoonful. The formulæ for this compound was published in the Detroit Lancet for January, 1882, and is known as Emulsion of Cod-Liver Oil with Catawba Wine and Dialyzed Iron.

The electro-vapor bath is one of the most valuable means in our hands for promoting the processes of nutrition and improving the general health. Applied as hereafter described it is a powerful stimulating tonic, increasing tissue changes and aiding materially in the elimination of the products of suboxidation from the blood. Normally albuminous food is utilized for tissue building, and finally, by its decomposition, is oxidized into urea, which, being soluble, is conveyed from the body as a waste product by way of the skin and kidneys. But when the nutritive processes refuse to perform their functions properly, or there is an excess of nitrogenous food beyond the powers of the system to eliminate the blood is filled with suboxidized products. The albumen, instead of being changed into urea, stops short in the process as uric acid, oxalic acid and other similar products, which, remaining in the blood, are supposed to be the cause of gout, and probably of a number of cutaneous affections. By increasing the nutritive processes the oxidation is completed and the morbid products no longer found. This is the theory, and the results attending the application of these baths seem to demonstrate in many cases that it is practically correct.

The electro-vapor bath consists in a galvanized iron box in which the patient sits upon a stool connected with a battery, with his feet immersed in a foot-bath which is also connected with the battery. The box is so constructed that the head of the patient is allowed to protrude through the top and is thus protected from the vapor. This is generated by means of a spirit lamp underneath a small galvanized dish of water placed in front of the foot bath. The electricity is applied by means of a sponge electrode which is thoroughly rubbed over the surface of the body, the circuit being completed by the other electrode which is connected with the foot-bath and stool. A somewhat similar apparatus is now in use at the American Hospital for Skin Diseases in this city in the service of Dr. J. V. Shoemaker, at which institution the bathing system is carried to great perfection.

It will be observed that by means of this arrangement general faradization as practiced so successfully by Rockwell is applied in the most complete manner.

With regard to exercise I have little to say that has not already been said much better than I can say it. Exercise is essential to functional activity, and properly employed it is an agent capable of great good. Out-door exercise is specially important that the lungs may be filled with fresh, pure air containing oxygen for food and tissue combustion. But anæmic patients, especially women, suffering from adynamia, should be careful about exercise carried to the point of exhaustion. The vitality of such people is best renewed "by a combination of entire rest and excessive feeding, made possible by passive exercise obtained through the steady use of massage and electricity," as practiced so successfully by S. Weir Mitchell.*

The subjects of massage and rest are ably advocated in Dr. Mitchell's monograph already referred to. It is not my purpose to go into details concerning them. The three points which I wish to bring out are, 1st, the theory of the cause and effects of adynamia, and what it is; 2d, the use of cascara sagrada and desiccated blood in its treatment; 3d, the electro-vapor bath. In addition to this I have indicated a general course of treatment to show the position and relative value of these agents as remedial measures.

Now, with regard to the administration of these remedies. Cascara sagrada is prepared in the form of a fluid extract of the strength of a grain of the drug to a minim of the finished preparation, the dose of which is from ten drops to a drachm three times daily, given for effect. The dose should be guided by its effect on the bowels and increased or decreased accordingly. Combined with berberis aquifolium, it is made into an elegant elixir and called cascara cordial. The formula for this elixir originated with Messrs. Parke, Davis & Co., and is published in the DETROIT LANCET for January, 1882. This elixir is very pleasant to take, being free from the intense bitterness of the fluid extract. The dose is from half a teaspoonful to a teaspoonful or more for effect.

Desiccated blood is put up in four ounce tin cans by the same house, and is furnished them from the immense stock yards of Jersey City, and prepared under the supervision of the expert of the yards, Dr. J. J. Craven. It may be employed in solution either *per os* or *per anum*. The former is usually preferable. It is best administered in the form of solution after the following formula.

PER OS.

℞ Sanguinis bovini exsiccati........ ʒ vj
Aquæ........................... fl ℥ jv.

M. ft. sol. et. adde.

Spts. vin. gal...................
Glycerini....................āā fl ℥ jv.

M. Sig. Tablespoonful or more every three hours.

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*Fat and Blood, and How to Make Them. Monograph by S. Weir Mitchell, M. D. Philadelphia: J. B. Lippincott & Co.

This formula was originated by Andrew H. Smith, M. D., Physician for St. Luke's Hospital, New York City. To it may be added, if desired, ol. anisi, gtts. v., or ext. celery, fl. ʒ ij, or both. This still further disguises it.

PER RECTUM.

To tepid water, in a bottle half filled, add the required amount of powder. Shake until dissolved. Bring the solution to blood heat by the addition of warm water before injecting. Dose, from 4 to 8 drachms daily, or more, as circumstances may require. Give at bed time, or in divided portions during the the day. If greater amount than can be absorbed be injected at one time, and decomposition result, wash out the rectum with tepid water before continuing medication.

Finally, with regard to the mental causes of adynamia, and their treatment, I cannot do better than by quoting the following passages from Alexander Bain's excellent paper on the *Correlation of Nervous and Mental Forces.*

"The great divisions of the mind are: feeling, will, and thought; feeling, seen in our pleasures and pains; will, in our labors to attain the one and avoid the other; thought, in our sensations, ideas, recollections, reasonings, imaginings, and so on. Now, the forces of the mind, with their physical supports, may be evenly or unevenly distributed over the three functions. They may go by preference either to feeling, to action, or to thinking; and, if more is given to one, less must remain to the others, the entire quantity being limited."

"First to the feeling. Every throb of pleasure costs something to the physical system; and two throbs costs twice as much as one. If we cannot fix a precise equivalent, it is not because the relation is not definite, but from the difficulty of reducing degrees of pleasure to a recognized standard. Of this, however, there can be no reasonable doubt—namely, that a large amount of pleasure supposes a corresponding large expenditure of blood and nerve-tissue, to the stinting, perhaps, of the active energies and the intellectual process. It is a matter of practical moment to ascertain what pleasure costs least, for there are thrifty and unthrifty modes of spending our brain and heart's blood. Experience probably justifies us in saying that the narcotic stimulants are, in general, a more extravagant expenditure than the stimulation of food, society, and fine art. One of the safest of delights, if not very acute, is the delight of abounding physical vigor; for, from the very supposition, the supply to the brain is not such as to interfere with the general interests of the system. But the theory of pleasure is incomplete without the theory of pain.

"As a rule, pain is a more costly experience than pleasure, although sometimes economical as a check to the spendthrift pleasures. Pain is physically accompanied by an excess of blood in the brain, from at least two causes—extreme intensity of nervous action, and conflicting currents, both being sources of waste. The sleeplessness of the pained condition means that the circulation is never allowed to subside from the brain; the irritation maintains energetic currents, which bring the blood copiously to the parts affected."

"Next as to the will, or our voluntary labors and pursuit for the greater ends of obtaining pleasure and warding off pain. This part of our system is a compound experience of feeling and movement; the proper mental fact being included under feeling—that is, pleasure and pain, present or imagined. When our voluntary endeavors are successful, a distinct throb of pleasure is the result, which counts among our valuable enjoyments: when they fail, a painful and depressing state ensues. The more complicated operations of the will, as adjusting many opposite interests, bring in the element of conflict, which is always painful and wasting. Two strong stimulants pointing opposite ways, as when a miser has to pay a high fee to the surgeon that saves his eyesight, occasions a fierce struggle and severe draft upon the physical supports of the feelings."

"Although the processes of feeling all involve a manifest, and it may be a serious, expenditure of physical power, which, of course, is lost to the purely physical functions; and although the extreme degree of pleasure, of pain, or of mental excitement, must be adverse to the general vigor; yet the presumption is, that we can afford a certain moderate share of all these without too great inroads on the other interests. It is the thinking or intellectual part of us that involves the heaviest item of expenditure in the physico-mental department. Anything like a great or general cultivation of the powers of thought, or any occupation that severely and continuously brings them into play, will induce such a preponderance of cerebral activity, in oxidation and in nerve currents, as to disturb the balance of life, and to require special arrangements for redeeming that disturbance. This is fully verified by all we know of the tendency of intellectual application to exhaust the physical powers, and to bring on early decay."

The learned author's advice in view of all these facts is most excellent. He says: "Improve the quality and increase the quantity of the food; increase the supply of oxygen by healthy residence; let the habitual muscular exertion be such as to strengthen and not impair the functions; abate as much as possible all excesses and irregularities, bodily and mental; add the enormous economy of an educated disposal of the forces; and you will develop a higher being, *a greater aggregate* of power. You will then have more to spare for all kinds of expenditure—for the physico-mental, as well as for the strictly physical. What other explanation is needed of the military superiority of the officer over the common soldier? of the general efficiency of the man nourished, but not enervated by worldly abundance?

Addison's Disease Associated with Insanity—A Report of Three Cases.

BY DR. JAS. D. MUNSON, ASSISTANT MEDICAL SUPERINTENDENT OF THE EASTERN MICHIGAN ASYLUM, AT PONTIAC.

ADDISON'S disease seems to be extremely infrequent in the insane, and as far as I have been able to learn no cases of it have been reported from the asylums of this country. It is stated by Merkel that Williams attempted to connect "certain cases of melancholia with morbus Addisonii," and among the symptoms of that disease Rosenthal places mental depression and hallucinations as indicative of a nervous affection. It has been stated by Griesinger, that in Addison's disease there is generally great depression of sentiment, but that no case of actual mental disease was known to him.

Addison's disease may fairly be considered the cause of insanity in two of our cases, while in the third epilepsy may have preceded the supra-renal affection. Epilepsy would in part explain Mr. X's condition; but on the other hand, convulsive seizures are not unknown in the history of Addison's disease. Owing to his cachetic appearance the disease was regarded as malignant in nature, but from the peculiar hue of the skin, the supra-renal organs were carefully examined after death.

Case 1. J. M., æt. 24, a blacksmith by occupation, was admitted to the asylum in a state of deep depression, July 5, 1880. The history obtained was imperfect, and the early symptoms of his illness and the time at which the discoloration of the skin was first observed, were not ascertained. Hereditary tendency to mental disease was denied. There had been no convulsions or previous attacks of insanity. It was stated that he had no vicious habits, that he was industrious and showed superior skill at his trade. He suffered at one time from a chronic form of nasal catarrh, to which his mental trouble was ascribed. He had been in failing health for some time, but more noticeably since the previous August. He then became depressed, had delusions of apprehension, and dreaded want and the poorhouse. He had not been suicidal, but had been irritable and violent toward his mother, and for some days past had been confined in the county jail. When admitted he looked well nourished, but was really in feeble bodily health. Mentally he was stolid and indifferent, suspicious in his manner, refused to answer questions, and was annoyed by personal attention. His face and hands were observed to be pigmented, but owing to his apprehensiveness no further examination was made. His pupils were equal but widely dilated, his hands cold, pulse 120 and his mind seemed controlled by some powerful delusion the nature of which could not be ascertained. At first he was languid, indisposed to make exertion and was very asthenic; he seldom moved, and did not, as a general rule, accept attentions without manifesting opposition to them. During his treatment he never showed any interest in his associates, and his deportment was that of a man who feared injury. If annoyed he manifested irritability, but was not violent. Within the first two months his vital powers became much reduced and his condition gave rise to anxiety. He had occasional attacks of diarrhœa, and at times sickness at the stomach. His temperature was usually found to be lower than normal. Afterwards a remission in his symptoms occurred. His nutrition improved, his skin was lighter in color and at times he was willing to answer the questions of one of his attendants to whom he had taken a fancy. He did not read or engage in any useful occupation, although he dressed himself and was neat in his habits. During the winter he seemed better physically, but his pulse continued rapid, his pupils dilated and sclerotics very white. Towards spring the discoloration of the skin grew worse and was of a dark olive tint. The pigmentation was general, but the face, hands, chest and abdomen were darkest. It was now evident that Addison's disease was the cause of his illness. From this time there was a gradual failure in his condition. He preferred to be about the hall and went out occasionally in the open air. In May he commenced to have attacks of faintness, and on June 2, 1881, while out a few steps from the building he was attacked with syncope. He was found almost pulseless; his extremities cold; his face bloodless; pupils dilated to their utmost extent and his expression of countenance anxious. Under the use of stimulants he reacted slowly and at bed time was fairly comfortable. The next morning his respirations were increased and he had several watery evacuations during the day. June 4th the heart's action was extremely feeble. There was some tenderness over the stomach and bowels, and nausea and vomiting were present. A large area of dullness was found over the region of the spleen. At 4 P. M. his pulse was 156, and temperature 103°. His skin was hot and dry, thirst urgent, urine scanty, tongue slightly coated white, and pupils about normal. He could not be induced to speak, but did not oppose his treatment. The dejecta contained food which had apparently undergone no disgestion. During the night his fever subsided, but the diarrhœa, nausea and vomiting, and symptoms of great prostration continued. The discharges from the bowels were mixed with blood and his condition was alarming. From this time until his death on the morning of the 9th, he was greatly distressed with vomiting. He had frequent bloody dejections, and during the last few hours of his life was harrassed with hiccough, and at times was delirious. Had he been free to converse, much more, perhaps, might have been added relative to his mental and physical symptoms; as it is, whatever pain he suffered, whatever bodily distress he experienced, and much of the gloom and morbidness to which his mind was prey cannot be recorded here.

The autopsy was made 24 hours after death. The rigor mortis was not marked. The whole surface of the body was pigmented. About the chest and abdomen, some portions of the skin were more discolored than others, and gave to those regions a mottled appearance. The knees, elbows and axillæ were very dark, and the penis and scrotum were almost black. Only the contents of the thorax and abdomen were examined. There was a good amount of subcutaneous fat, and the tissues were not especially anæmic. The inspection revealed a complete transposition of all the viscera. The lungs were normal. The left lung had three lobes and the right but two. They were somewhat pigmented, but not unusually so. The heart was on the right side of the body. Its apex pointed to the right, was directly under the nipple, and in the fifth interspace. The arterial ventricle was next to the median line, and the aorta curved to the right, giving off its branches normally, but in inverse order. The heart was slightly under size, weighing only ten ounces; it was healthy. The omentum and intestines showed no disease. The ascending colon was on the left and the descending on the right side. The stomach was apparently healthy. The cardiac orifice and fundus were to the right and the pylorus to the left. The spleen was located in the right side; it weighed six ounces; it was normal in shape, color and consistency. The liver was in the left hypochondrium; it weighed forty-three and one-half ounces; it was normal. The lobes were transposed. The duodenum passed down to the left of the spine, but crossed to the opposite side in the lumbar region. The pancreas was situated in the right side of the abdomen, and was healthy. The kidneys were not diseased. The supra-renal capsules were much enlarged and greatly altered from their normal condition; the right was more diseased than its fellow, and was so bound down by adhesions that it could not be removed from the body. The left capsule contained soft, yellowish masses. Through an accident the portions saved for microscopical examination were lost.

Case 2.—Mr. X., æt. 27; a hotel keeper; was admitted to the institution August 20, 1881. His father was very intemperate, and a maternal aunt insane. He had been a successful business man, but intemperate, and had suffered from epilepsy six years. He had gradually become irritable, suspicious and depressed. His physical health had been poor a long time, but the commencement of his illness could not be fixed. His treatment had almost entirely been directed toward controlling the convulsions. He had not been suicidal, but disposed to do acts of violence without cause. Within a few months he had twice been confined in jail, from whence he came to the asylum.

When I first saw him he appeared apathetic and dull. His conversation was disconnected, and it was difficult to hold his attention. His ideas were confused, and it seemed to cost him a great effort to express himself. His face was bloodless, and his countenance expressed suspicion and incredulity. He was in fair flesh, but complained of weakness and want of strength. He was anæmic, listless and languid. His pulse was scarcely perceptible, and a slight systolic murmur was present. His feet were œdematous, and his secretions were deranged. There was a tendency to diarrhœa. His skin was tinted yellow, and from this fact malignant disease was suspected. No tumor, however, could be detected. At first he was inclined to seclude himself in his room; said he had no confidence in his strength, and did not believe that he could walk. After a few days he was brighter, was induced to go out, and was pleased after he had made the attempt.. He continued to improve for awhile, but his mind acted slowly, his comprehension was imperfect, and he exhibited much bodily lassitude. He appeared, however, less cachectic, and there was less swelling of the feet. His urine was examined from time to time, but no albumen, casts, or other abnormal products were found. His bowels were occasionally loose, and he had frequent attacks of vomiting. From the first he had complained of pain in the stomach, and about a month after his admission, a very painful point was discovered over the pylorus, but no tumor could be felt. It was confidently suspected that he was suffering from cancer of the stomach. He also at times complained of difficulty in emptying his bladder and rectum, and was much distressed by flatulence. His appetite was delicate, but he did not emaciate. He complained of headache and frequently spoke of a fluttering in either side of the neck and a beating in the back of his head. He had two or three convulsions during his treatment, and after them was confused and stubborn. He gradually grew debilitated, and finally was unable to leave his bed. His pulse was very rapid and scarcely distinguishable; his mind was occupied with vague notions of suspicion, and sometimes he thought that he was to be suffocated with gas. Toward the last he had repeated hæmorrhages from the nose. Microscopical examination of this blood showed it to be greatly deficient in both white and red corpuscles. The margins of some of them appeared swollen and gave to the globule a markedly cupped appearance. Some of them were notched, and others were much shriveled. Blood taken from the arm showed the same peculiarities in its corpuscular elements. The ratio of the white corpuscles to the red was not thought to be increased. To the end of his illness he continued whimsical, petulant and unpleasant, and suspicious of the motives of his attendants. The vomiting and diarrhœa became more frequent and he finally died from exhaustion two months after his admission. The discoloration of the skin grew rapidly darker during the last few weeks, and at the time of his death a bronzing of the skin was quite noticeable. The diagnosis of Addison's disease was not made before death. His wife informed us, however, that Professor Maclean, of the University of Michigan, had, about six months previous to his coming under our care, given it as his opinion that he was suffering from Addison's disease.

A post mortem examination was made about twelve hours after death. The skin showed a yellowish brown pigmentation. The body was not emaciated, but was extremely anæmic; it contained so little blood, in fact, that during the autopsy scarcely an ounce was lost; what was observed was watery, pale and impoverished. Of the abdominal organs, the liver was found slightly enlarged, but was regular in form; its color was paler than normal. A small growth, thought to be cancerous, occupied the pyloric portion of the stomach, and had encroached upon the duodenal orifice forming a partial stenosis. There was thickening and bluish discoloration of the gastric mucous membrane. The gall bladder contained numerous calculi. The intestines were small, pale and empty. The mesenteric glands were not affected. The kidneys were normal in size, but pale. The right supra-renal capsale was so much broken down and disintegrated by disease that it was impossible to effect its removal, except in small pieces; the left was removed entire; it was enlarged and its surface was colored with yellowish masses; there were also calcareous concretions in its substance; a small cavity filled with a greenish fluid occupied one portion. The thoracic and cranial cavities were not inspected. The microscopical examination of the capsule showed it to be broken down at points and replaced by a granular substance, which did not take the carmine staining well. The nature of this morbid material I am unable to state. No fatty or amyloid changes were discovered. At many points the cortical portion was normal, as far, at least, as the arrangement of its cells was concerned. The medullary portion seemed to be poorly supplied with blood vessels, and no nerve fibers were seen in any of the sections. The tumor of the stomach proved to be simply a fibrous thickening, as if from hypertrophy of the connective tissue. There were none of the characteristic elements of cancerous degeneration. The gastric mucous membrane was normal. The liver and kidneys were healthy.

Case 3.—C. S., German, æt. 19, laborer, was admitted to the asylum October 17, 1881. Mental disease was said to be hereditary in his family. His father is deficient in intellectual endowments, and an uncle died in an insane asylum. A brother suffered from chorea and died at the age of sixteen. The patient was imperfectly developed physically, and was no larger than a boy 12 or 13 years old. He was ordinarily intelligent, and until this attack was free from any symptoms of mental disease. He had been in poor health for about nine months. His illness commenced with what was thought to be endocarditis. He complained of much pain and uneasiness about the chest and soft friction murmurs were heard over the heart. A few weeks subsequent to this sickness he had "purpura" on his legs, and diarrhœa and hemorrhage from the bowels. Whether there was any constitutional disturbance accompanying this affection was not ascertained. After this he improved somewhat but did not regain his strength, and a few weeks previous to his admission he became depressed, irritable and threatening towards his friends. He was brought to the institution in extremely delicate bodily health, and was scarcely able to walk unsupported. His circulation was rapid and feeble, the heart's impulse being only perceptible through the chest walls. Rude respiration was heard in the left lung. His expression was anxious and dejected and indicative of mental enfeeblement. He did not seem to comprehend questions and his conversation was merely a mumble of words. The special senses were normal. His pupils were dilated and sclerotics white. His skin was dry, but the whole surface of his body was markedly pigmented. The bronzing was deeper about the joints, abdomen and chest. There was no pigmentation at the commissures of the lips. Addison's disease was at once suspected as the cause of his illness. During the first month he required very careful nursing. He was timid and seemed afraid of every one who approached him. His voice was faint and puny, and he repeated something over and over, of which only now and then a word could be understood. He was inclined to get out of his bed, and to wander about his room, moving furniture in a purposeless way. His bodily attitudes and movements showed great weakness and debility. He was emaciated. He improved rapidly and was disposed to walk about much of the time. He usually held his hand to his chest and constantly uttered a low sound, but never complained of pain. About the end of the third week he had an attack of diarrhœa attended with vomiting. He had several similar attacks during his residence here. For the next three months he improved pleasantly; he was brighter, less apprehensive, gained in weight, and his complexion was thought to be clearer; he conversed with his friends, who frequently visited him, but rarely with any one else. In February he began to fail, he lost flesh, became anæmic and extremely debilitated; his appetite was capricious; he was troubled with flatulence, his feet were swollen, and it was evident that fatal exhaustion was not far off. Microscopical examination of the blood showed much the same changes in it as were found in the preceding case. He was removed by his friends on the 10th and died on the 21st of March, 1882.

An autopsy was made by Dr. John Flintermann, of Detroit. The body was emaciated. The skin was bronzed, but more particularly so about the forehead and chest; the penis and scrotum were extremely dark; the abdomen was tympanitic and the feet somewhat œdematous; the lungs were healthy with the exception of a few collapsed lobules in the lower lobe of right lung; the heart was small, but normal; the intestines, stomach and spleen were healthy; the liver was normal in size, but of a pale yellowish color; nothing abnormal was observed about the pancreas or kidneys; the supra-renal capsules were extremely small, otherwise were apparently normal; brain not examined. Specimens were saved from the liver, kidneys and capsules. Microscopical examination of sections from the kidneys revealed no marked change from normal type, except that the epithelia of the convoluted tubules were deeply pigmented and shrunken, giving to the tubules a larger lumen than normal. The liver showed signs of commencing fatty degeneration; a few fat globules were scattered through the sections. No amyloid changes could be detected. Transverse sections from the widest part of the supra-renal capsules were only five-eighths of an inch in length and less than one-sixteenth of an inch in thickness. The cortical portions presented the usual outer glomeruli of cells. In some portions of the middle zone the normal columnar arrangement did not exist, there being instead simply a delicate connective tissue net-work, filled with extremely fine dark particles. Where the columns existed, the spaces between them were filled with polygonal, nucleated cells, and very fine granular matter as in the normal organ. The inner layer was not distinguishable and there was great wasting, or at least deficiency, in the medullary elements of the capsules. No nerve fibers were seen, and no inflammatory or other pathological changes could be detected.

Whether the primary seat of Addison's disease is in the capsules or not, its manifestations probably depend upon pathological changes in the abdominal nervous centers. Mr. Greenhow maintains that "the disease is invariably associated with one particular lesion of those organs, but that we must seek for some other means by which this lesion can give rise to the symptoms which indicate its presence." This secondary condition, he thinks, is caused by the extension ot the chronic inflammatory process from the diseased capsules to the surrounding parts, giving rise to dense overgrowths of connective tissue and adhesions between the capsules and neighboring organs, which not only involve the nerves of the capsules, but the sympathetic ganglia in their vicinity. The constitutional symptoms, discoloration of the skin, &c., would be caused by the lesion of the sympathetic. On the other hand, Semmola has recently demonstrated in this disease, "Pathological alterations in the ganglionic centers of the abdomen. In one of his cases he found myxomatous transformation of the tissues of the coeliac ganglion, and leucæmic infiltration of the dorsal region of the spine toward the central canal. In one instance he found a fatty degeneration of some points of the solar plexus. The microscopical examination, however, of the supra-renal capsules gave negative results; those organs were completely healthy. The conclusion is drawn that Addison's disease is caused by disorder in the sympathetic nerves and abdominal ganglia, then slowly follows a histological alteration in the tissues of those centres, and this pathological condition finally brings anatomical alterations in the supra-renal capsules and other organs. The disorders of the stomach, the cachetic and asthenic condition of the patient, the falling of temperature, etc., are nothing but the manifestations of a slow morbid process which commences by disturbing the work of digestion, and ends in weakening the organic oxidations and the nutritive metamorphoses, that is, in exhausting the functions of vegetative life, which are under the control of the sympathetic nerves and its accessories. The discoloration of the skin is also to be attributed to the same nervous cause. There is every reason to believe that the sympathetic nerve and the ganglionic centers must exert the same trophic influence in the formation of pigment as they have in all the chemical proceedings of nutrition."* My experience has frequently led me to note a great similarity in the mental symptoms in cases of insanity associated with grave organic affections. This resemblance has been particularly observed in connection with carcinoma of internal organs, organic disease of the lungs, heart, kidneys, etc., that have come under my observation in this institution. This group of cases, Addison's disease included, is nearly always characterized by depression, irritability and suspiciousness and apprehensiveness of manner. This depression is not so intense as is witnessed, for instance, in uncomplicated religious melancholia, the absorption in self is not so pronounced, and I have never seen any suicidal tendencies. These patients seem to feel that harm or injury will happen to them in one way or another, and view with distrust every act of their friends and associates. There may be hallucinations of sight and hearing, although these are comparatively rare. There are delusions in some of these cases which would seem to have a special relation to the organ affected. Thus in the insanity of organic ovarian disease, erotic delusions are common, and in a case of scirrhus of the pancreas which was under our care, the patient was not only extremely irritable, but was in constant dread of starvation, although the amount of food habitually taken was excessive. Likewise in chronic peritoneal diseases, the patients frequently believe that they have some foreign body within them. One of the patients of the asylum imagined that he had swallowed a cannon and a priest, and another believed that one of his relatives had taken up an abode in his abdomen. These delusions owe their origin to anomalous sensations, generated by perverted and diseased conditions of the peripheral nerves. The mental disease which results from these organic causes usually develops slowly and insidiously. Before insanity is established the patient is conscious of being depressed, is vaguely suspicious of others, has gloomy forebodings of the future, or is undecided, timid and distrustful of himself. His will power soon becomes weakened, foolish fears are no longer dismissed by sober sense, and groundless suspicions take possession of his mind. He becomes fretful and irritable, his surroundings grow more and more unreal to him, until he reacts strangely to every mental impression. With the advance of the bodily disease, his intellectual faculties become more enfeebled and finally positive delusions assert their dominion over him. All his trouble may be ascribed to fancied enemies; he may refuse food for fear of poison, may imagine himself the victim of a conspiracy or the dupe of friends, may hear evil voices or see imaginary personages threatening him, or he may live in a state of constant irritability and dread. A feeling of impending personal injury is sometimes intense and causes these patients much distress. It is also difficult to divert them from their painful thoughts. They are generally taciturn and sometimes refuse to converse, in consequence of delusions of suspicion, but occasionally are loquacious and agressive. The mental symptoms may fluctuate from time to time. Remissions, during which the patient may be quite free from delusions, sometimes occur, and on the other hand, exacerbations may take place. If the underlying bodily condition is one amenable to treatment, there generally ensues a corresponding improvement in the mental action of the individual. The part these diseases play in the production of insanity is not understood. "Even when we understand the cause at work and the character and degree of an effect produced by one structure upon another, the *modus operandi* may be obscure."* They all tend to lower the vitality of the individual from the first. Alterations in nutrition, especially of the nervous centers, vaso-motor disturbances, irregular distribution of the blood and degeneration of the nervous tissues are all probable conditions. That they may modify the nutrition of the brain and lead to functional or to anatomical alterations, and to anomalous mental states there can be no doubt. It is very possible that the disordered mental action in these cases is in part reflex. Clinical experience would seem to prove that irritation of any part of the organism may either increase or diminish the excitability of the cerebral cortex. Moreover, the peripheral nervous apparatus, "as also the ganglionic system of the sympathetic, possesses not only functions of transmission, but also central functions of communication, of association and excitation. The states of any part of the nervous system, inasmuch as they are transmitted to the brain, also furnish matter of mental excitation and intellectual activity."* An organ that is diseased must involve to a greater or less extent the nerves supplied to it, and at the same time impressions may arise from it which modify the central nervous functions, or, in other words, disorder the nervous substratum upon which the psychical operations of the individual depend.

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*See abstract in "Alienist and Neurologist," July, 1882. From trans. of John DelOrto.

In this class of cases an important factor bearing upon the causation of the insanity is heredity. From the histories of our patients it is found that many of them had marked hereditary predisposition to mental disease, or at least had inherited mental organizations, which would offer but slight resistance to the inroads of disease. Whatever the relation between bodily diseases and insanity may be, it is an interesting fact that the delusions are, as a general rule, from first to last those of depression, suspicion and apprehension. When a patient is seen who persistently suffers from these symptoms, some serious organic cause is almost invariably found.

In my opinion the mental troubles noted in these cases of Addison's disease were due to functional disturbance of the brain, in part excited reflexly from the diseased abdominal centers, and in part by mal-nutrition and impoverishment of the blood which are sequences to the pathological changes of this most fatal malady.

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Syphilitic Disease of the Tonsils—Report of a Case with Differential Diagnosis.

BY L. E. MAIRE, M. D.†

IN the diagnosis of syphilitic disease of the tonsils great care must be taken to obtain a truthful history of the case, for sometimes, as is apt to be the case in tertiary ulceration, the primary and secondary lesions have been so slight as to have been forgotten by the patient during the lapse of a few years, and were it not for the peculiar features characteristic of syphilitic ulceration the diagnosis could not be made with certainty.

It is one of the peculiar facts in the history of syphilis that each manifestation of its influence on the skin will have its counterpart on the mucous membranes; there is this difference existing between them, however, that while those parts of the skin which have been affected tend to undergo the adhesive form of inflammation, the affected mucous membrane has little disposition to.

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*Skene, Am. Jour Obst Vo. XIV, p. 55.

*Griesinger, Mental Path., etc., page 1.

†Assistant to the Laryngological Clinic at Detroit Medical College.

The character of specific lesions affecting the tonsils may be either primary, secondary or tertiary; secondary and tertiary lesions are the most common, while primary is the rarest of all.

When chancre affects the pharynx it is generally on one or other of the tonsils, owing it has been supposed to the structure of these glands, the lacunæ being arranged so as to receive and retain the virus as it enters the fauces, or coming in contact with an abraded surface the virus is inoculated producing a primary chancre. Virus may be communicated to these parts by drinking out of a cup used by an affected person or in the act of kissing, the virus being derived from a chancre on the lip.

It is on record where a single physician inoculated forty patients with syphilis by means of unclean instruments used to catheterize the eustachian tube.*

One would be apt to suppose without a careful examination of recorded cases that primary chancre of the oral passage would be found more frequently in females than males. But such is not the case, for according to Diday, primary chancre on the tonsil existed equally amongst male and female. The experience of Dr. Mackenzie, however, is directly opposite to this; out of seven cases of chancre of the tonsil six were female and one male. The examination by Desnos of an extensive collection of statistics tends to confirm the experience of Diday, showing that primary lesion of the tonsil is found about equally divided between the two sexes.

The extreme rarity of chancre of the pharynx is shown by Mackenzie in the record of 673 cases of chancre found in the oral passage, "not one was found behind the anterior pillars of the fauces, while of seventy-seven recorded cases of chancre of the buccal region only one was found to have its seat on the tonsil."

Chancre of the tonsil is very apt to be overlooked, not only from its extreme rarity, but also from the history and surroundings of the patient. The appearance of the lesion is usually a superficial ulcer, with the surrounding tissue slightly œdematous and puffy, making the edges appear elevated, the corresponding glands at the angle of the jaw are slightly enlarged. Sometimes chancre of the tonsil, as has been observed, manifests itself as a slight erosion of the surface of the gland which appears engorged to some extent. This manifestation of primary lesion is shortly followed by slight swelling of the gland at the angle of the jaw, and in due time by the appearance of the secondary lesions.

The subjective symptoms of chancres at this point are apt to be slight, unless they assume the phagedenic form of ulceration. Patients then complain of pain, soreness and stiffness of the jaw; these symptoms may be accompanied by more or less fever.

Secondary lesions of syphilis affecting the throat are more apt to attack both sides of the pharynx and may be seen on both tonsils.

The secondary symptoms of syphilis of the tonsils generally appear simultaneously with its manifestation in other parts of the pharynx. It may appear as an erythema; which is one of the earliest manifestations of syphilis of the pharynx. Then again mucous patches may exist on the tonsils. A form of superficial ulceration is quite commonly seen upon the tonsils. Condylomata of the tonsils will generally be found associated with the same condition in other portions of the body. Usually the first symptoms of secondary trouble affecting the throat are much the same as is found in common sore throat, viz.: soreness, dryness and pain on deglutition; these symptoms may be accompanied by more or less fever.

On examination of the throat in the case of specific erythema, the tonsils, also the pillars of the fauces and veil of the palate will be seen to be uniformly reddened; after the lapse of a few hours (24 to 48 hours) the erythema is seen limited by abrupt and well defined margins to certain parts of the pharynx or tonsils. Specific erythema never fades away gradually, but is always guarded by a well marked line of demarcation from the healthy mucous membranes, and is symmetrically located in the pharynx. The diagnosis of syphilitic erythema of the tonsils or pharynx will be aided by the appearance of a similar condition of the skin.

After this syphilitic erythema has existed some time the reddened surface becomes more livid, the affected parts become swollen, and at the center of these swollen portions of membrane an opaque slightly elevated spot, due to distention of epithelial cells, may be seen. These are called mucous patches, and are sometimes met with on the surface of the tonsils, but their most usual situation is on the lips, tongue, inside the cheek and soft palate. These patches are generally situated symmetrically on the tonsils and pharynx. In course of time these patches become broken down and become the seat of shallow ulcerations, with uneven edges, their bottoms are covered with debris of a light grayish color.

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*See page 400 Quarterly Epitome, 1880.

While they last they cause a great deal of soreness and pain, especially during deglutition. The duration of these syphilitic patches is usually from six to eight weeks; their existence in the throat is usually associated with papular lesions of the skin.

Secondary syphilitic ulceration of the tonsil is generally preceded by considerable tumefaction of these glands; the tonsils appear red, tense, and covered with an adherent secretion. This condition is soon followed by ulceration of the inflamed follicles of the tonsils and also of the soft palate. These syphilitic ulcers may also be observed on the gums, tongue, and epiglottis. They coalesce by extension at times with great rapidity. They are usually very superficial, but the ulcerative process may extend down into the sub-mucous tissues to considerable depth, and by their coalescence cover an extensive area. The edges of these ulcers are sharply cut, and are surrounded by an inflamed border, separated from the unaffected tissue by a line of demarcation. Their bases are covered with a grayish lymph.

The deeper forms of specific ulceration of the tonsils occurring as a secondary lesion commences generally without much pain or inconvenience; on inspection prior to the period of ulceration, the tonsils appear tumafied, the mucous membrane will be found to be of a livid red color. In a short time ulcertion appears spreading equally in every direction, producing a deep circular ulcer with sharp cut edges, the base being covered with a grayish or yellowish material, the color being modified by the nature of the secretion coming in contact with it. This form of specific ulceration appearing during the late secondary stage of syphilis may be confined to one tonsil.

Tertiary manifestation of syphilis of the tonsil possesses the same characteristic appearance as it does when situated in any portion of the pharynx. These manifestations may consist of ulceration, gummata or abscess, and are generally confined to one tonsil. The ulceration may be either superficial or perforating.

The superficial ulcers being confined to the superficial structures of the tonsils, they often attack the pillars of the fauces and veil of the soft palate. They extend quite rapidly and may at times assume the serpiginous form of ulceration. Wiping away their covering of ichorous pus, their bases are seen pale and smooth, presenting a few fungous granulations. The edges of these ulcers are jagged and irregular in outline; fissures are sometimes seen extending from them into the substance of the glands.

This form of tertiary ulceration occurring in patients of a scrofulous diathesis is called "scrofulo-syphilitic ulceration." Some importance is to be attached to these complicated ulcers, on account of their intractableness, as well as in their treatment, the scrofulous diathesis is to be kept in view. Deep or perforating syphilitic ulcers found on the tonsils or other portions of the pharynx commence with the appearance of a circumscribed reddened or erythematous patch; soon at its center is observed a spot of a dull white color, which gradually becomes thinner and thinner and finally breaks down with the tissues underneath.

These ulcers may be observed in cases of hereditary, as well as in acquired syphilis. The ulceration due to heredity is usually found in young subjects who vary in age from three to sixteen years. In the adult it is impossible to distinguish between ulceration due to hereditary and that of acquired syphilis. A truthful history of the case together with the absence or presence of the peg-shaped, notched teeth so accurately described by Hutchinson, will help to distinguish between them.

It is very probable that these perforating ulcers are due to the breaking down and suppuration of gummata situated in the connective tissue. This opinion is entertained by a number of writers, among whom may be placed Cohen, Mackenzie, Lancereaux and others. The peculiarity of this perforating ulcer consists not in its breadth or extent upon the surface, but in its depth, their long axis penetrating deeply into the tissues of the gland, destroying epithelial, connective and glandular tissues, cartilage, bone, blood-vessels—in fact, everything placed in its path is affected by the destructive action of this perforating ulcer. The destructive action of these perforating ulcers on the tonsils may give rise to profuse hemorrhage from ulceration of one or more of the tonsillar arterial branches.

Sometimes abscesses may form on the tonsil, due to suppuration of gummata; the abscess finally breaks and discharges more or less pus, leaving large foul ulcers; the tonsils are found to bleed readily when touched, and may ultimately be destroyed by extensive suppuration.

The following case of abscess of the tonsil, due to breaking down of gummata will illustrate its clinical history, also the importance of an early diagnosis:

A. M., æt. 40 years, by occupation a farmer, presented himself for treatment at my office, August 1, 1882. He gave the following history: Three months previous he experienced a peculiar soreness in the left side of the pharynx; this was especially noticed during deglutition. Examining his throat he noticed that the left tonsil was swollen and red; at its center was seen a pointed elevation, much like the pointing seen in a small furuncle. Becoming alarmed at this he consulted a regular physician of excellent standing, who diagnosed the case as one of common ulcerated sore throat, placing him upon tonics and astringent sprays locally, in which iron entered largely. This treatment was continued for a period of nearly two months without any benefit being derived whatever. The amount of iron which had been thrown into this patient's mouth in the form of sprays and gargles was so great and powerful, as to ultimately result in the destruction of his teeth. His own account of the progress of the disease is that in time this pointed elevation on the tonsil became larger and larger, the apex becoming thinner and thinner and more translucent, until it finally ruptured with the discharge of considerable pus, leaving a large foul ulcerated base. These changes were accompanied with more or less pain and difficulty in deglutition. Becoming dissatisfied with the result of the treatment, he went to a homœopathic physician who had been highly recommended to him. This homœopath diagnosed the case as one of chronic ulcer of the tonsil, and proceeded to treat it, but with no success, the case gradually becoming worse. The case finally came under my charge. Upon examining the throat I found the left tonsil large and inflamed, with a large deep circular ulcer the size of a ten-cent silver piece and about an eighth of an inch deep, situated upon its surface. The surface was studded here and there with a few fungous granulations. The gland itself was much enlarged and presented to the touch a sense of firmness. Extending the fingers along the fold of the soft palate from the left anterior pillar of the fauces to the uvula, the tissues were felt hard and indurated; this induration included the uvula also. The uvula appeared to be considerably enlarged; this was especially noticed in its antero-posterior diameter. Upon the left side of this appendage was seen two or three small shallow ulcers. The tonsil on the right side was atrophied, as is usually the case in a person of his age; the remaining tissues of that side appeared to be perfectly healthy. On questioning him as to his antecedent history, he stated that he formerly was a railroad man, and while stopping at some place along the line, he suffered, after exposure, from one or more sores on the penis; he did not remember how many, as this occurred several years ago. These sores remained for a few weeks and then disappeared. He was treated by a physician, and does not remember any secondary eruption, but from that time until the present trouble has had good health. Family history good. My diagnosis was tertiary syphilitic ulcer left from rupture of syphilitic abscess situated at this point.

The treatment of this case consisted of potassium iodide, at first grs. 5, and gradually increased to 20 grs. three times a day, with 10 minims of tr. cinchoniæ comp. in syrup; locally insufflation of pulv. iodoformi over ulcer once a day. Under this treatment the case steadily improved, and at the end of six weeks was discharged, cured. The ulcer had disappeared, and at its site was seen a puckered depression, which gradually grew less, until to-day a fine line of cicatrix is all that remains of what was once a large ulcer.

Prognosis.—The prognosis in most cases of syphilitic disease of the tonsils is good as regards life, still in weakly and debilitated subjects the prognosis should be guarded, for death may result from ulceration of some arterial vessel, causing fatal hæmorrhage, or the ulceration extending to bone, causing necrosis, which may ultimately cause death by long continued draining, or by septic poisoning of the system. The prognosis of syphilitic disease of the tonsils, on the whole, is good as to recovery, when subjected to the proper treatment.

Differential Diagnosis.—The positive diagnosis of primary syphilitic sore on the tonsil is impossible to make here as it is elsewhere with absolute certainty, until the appearance of the secondary eruption, which removes all doubt. Of all the recorded cases as far as I have been able to ascertain, the lesion is found single and never seated on both tonsils.

It may occur in male or female, for according to Diday and Desnos, who made extensive inquiry into the subject, the primary lesion of syphilis seated on the tonsil was found to exist about equally between the two sexes. The true character of the sore may be suspected if it is found in a patient who has been known to have been in any way exposed to the virus. This suspicion will be strengthened if the ulcer be superficial with the surrounding tissues slightly œdematous and puffy, making the edges appear elevated. A circumscribed reddened border will also be observed. The base will impart generally a sense of firmness to the touch. These symptoms will be shortly followed by enlargement of the corresponding cervical glands at the angle of the jaw, and by the usual secondary skin lesions if the sore is of syphilitic origin. Another diagnostic point is that this form of ulceration will not be found amenable to treatment used for common ulcer of the tonsil.

Secondary lesions of syphilis of the tonsils consists of erythema, mucous patches and ulceration. In the case of specific erythema, the reddened surface will be found to extend over the pillars of the fauces, the veil of the palate and portions of the pharynx, as well as on the tonsil. After a few hours this erythematous surface is seen to be limited to the affected portion, and soon a well defined marginal line is seen separating it from the healthy tissue. The diagnosis will be made easier if we remember that specific erythema never fades away gradually, but is always guarded by a well-marked line of demarcation from the surrounding unaffected tissue, and is seen symmetrically located. A similar condition of the skin will confirm the diagnosis.

Mucous patches on the tonsil will generally be associated with their appearance on the tongue, lips, inside the cheeks, and on the soft palate, situated symmetrically, and in course of time become the seat of shallow ulceration; they are usually associated with secondary papular eruption of the skin.

Secondary ulcers of the tonsils have symmetrical situation. Their edges are sharply cut and are surrounded by an inflamed border, separating them from the surrounding tissue. They are covered by a grayish lymph. These ulcers are usually very superficial, but the ulcerative process may extend down to the sub-mucous tissue to a considerable depth. In the diagnosis of secondary syphilis of the pharynx or tonsils, too much stress cannot be made on the fact that it is a symmetrical symptom of a constitutional disease. There is one form of superficial ulceration of the tonsil which may be confounded with secondary syphilitic ulceration. I refer to the common ulcerated sore throat. This disease is caused by the absorption of a septic element in the blood. The class of patients usually affected are those of a debilitated constitution, working about hospitals or dissecting rooms. The accompanying symptoms are foul odor of the breath, swelling of the throat and tonsils, difficult deglutition, loss of appetite, constipation, languor, pain in the limbs. The tongue is coated with a creamy-colored fur, the ulcers are small and irritable, superficial. and are scattered upon the tonsils and pharynx. Prognosis in these cases good. The treatment consists of tonics and antiseptics internally, and antiseptic sprays locally. This disease is not accompanied with the secondary skin lesions.

Tertiary syphilis of the tonsil is to be differentiated from cancer, lupus, cystoma, and tonsillitis maligna. In cancer of the tonsil there will be found considerable thickening, also invasion of the surrounding tissues, and more or less irregularity of its surface. There is usually less destruction of tissue than is the case in tertiary ulceration. Cancer will generally be found unilateral, although it may occur in both tonsils. It may occur primary or be secondary to cancer of other tissues. The encephaloid variety is the commonest; scirrhous and lympho-sarcoma have been observed. Cancer will not be found amenable to anti-syphilitic treatment. It appears usually in adults. This is a valuable diagnostic point in the case of children. Cancer, too, will rapidly progress to a fatal termination, the average duration of life being seventeen months. The statistics show that cancer of the tonsil occurs more frequently in males.

Lupus of the tonsil, so-called by some authors, is regarded by some observers as cases of scrofula of the tonsil; by others as cases of disease due to syphilis. The diagnosis of lupus will be confirmed if the disease occur immediately after or during an attack of cutaneous lupus; where this does not take place the diagnosis must of necessity remain doubtful. The treatment of lupus does not make clear the diagnosis, for the treatment of lupus is similar to that of tertiary syphilis.

Cystoma of the tonsils may occur in the substance of the glands or upon their surfaces. They contain usually a caseous substance, and in some cases they consist of true hydatid cysts; they may sometimes be confounded with tertiary abscess. The absence of specific history and the character of their contents will differentiate between them.

Tonsillitis maligna is an acute form of ulceration of the tonsils. Extending to the fauces it results in considerable sloughing of these parts. The disease is quite rapid in its progress. It commences generally with a chill, followed by fever, the throat becomes sore, the tonsils congested and of a dark red color, the surrounding tissues are seen to become very œdematous, so much so as to impede the passage of fluids into the œsophagus. There is also considerable discharge of foul smelling gangrenous shreds of tissue, the odor filling the apartment, making their presence unbearable. In tertiary syphilis the ulceration does not extend so rapidly. There is not the œdema of the surrounding tissues observed in tonsillitis maligna. The odor, too, is not so offensive, nor are the subjective symptoms so distressing.

In all cases of doubtful disease of the tonsils, a careful examination of both antecedent and present history should be made, and a rigid search made for the cicatrix of the primitive sore.

NO. 175 SIXTH STREET, DETROIT, MICH.

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Proceedings of Societies.

Proceedings of the Wayne County Medical Society.

DETROIT, Feb. 1, 1883.

The Wayne County Medical Society convened in regular session this evening, with the president, Wm. Brodie in the chair.

Dr. Devendorf read the subjoined paper—a continuation of a former one—on

THE LOSS OF BLOOD DURING THE MENSTRUAL PERIOD BY THE HUMAN FEMALE AN ABNORMITY.

A short time since I had the honor of reading before the society a paper claiming that the loss of blood at the menstrual epoch is a fault, and stated as my belief that it is due or was originally produced by the assumption of the erect position. I assumed in this discussion that the members of the society, in common with a majority of the scientific men of the day, have accepted the Darwinian theory.

If there be any who have not done so, but still cling to the belief that man was created by a special act of the Supreme Being, omniscient and omnipotent, to them I say that man, if so created, must necessarily be perfect in his organization; for omniscience could make no mistake and omnipotence could not fail in accomplishment. If the organization is perfect, all its phenomena must be productive of good to the organization, that is all vital action must tend toward the preservation of the organism. Having arrived at this conclusion, which is a perfectly fair and legitimate one, I ask any one who thus believes to show what good is served by the loss of three or four ounces of blood, every four weeks, for a period of thirty years, more or less, and these years the most important ones in the woman's life. I ask him to show how the organism is benefited by this constant tax upon its vitality.

But if we accept the theory of evolution, as I believe all will sooner or later, we are at liberty to recognize faults in the animal organization, which arise from some variation in the animal or from some change in its environment: if this fault is so great that the organism cannot re-adjust itself, or so serious in its nature that the animal or species labors under great disadvantage in the struggle for existence, then that animal or species will die out or become exterminated. Again we can see that a certain species by some "Deviation in structure or instinct" might gain some great advantage over other species, while at the same time this variation or change in condition might entail upon the species some disadvantages; in such a case if the advantages gained overbalance the disadvantages entailed then the species will maintain its advanced position, and the organism, in accordance with the law of self-preservation, strives to adapt or adjust itself to the new condition. No vast chasm or impassable gulf separates man from the animals next below him. Mind, which has exalted its possessor to the highest place in the scale of creation, differs "Only in degree, not in kind," from the instinct which guides and controls the lower animals, while the most casual observer must be struck by the similarity in physical structure between man and the other animals. Darwin says: "It is notorious that man is constructed on the same general type or model with other mammals. All the bones in his skeleton can be compared with corresponding bones in a monkey, bat, or seal. So it is with his muscles, nerves, blood vessels, and internal viscera. The brain, the most important of all the organs, follows the same law as shown by Huxley and other anatomists." Again he says: "It is, in short, scarcely possible to exaggerate the close correspondence in general structure, in the minute structure of the tissues, in chemical composition and in constitution between man and the higher animals, especially the anthropomorphous apes."

If, bearing in mind this similarity in model, this correspondence in bone, muscles, nerves, blood vessels, and internal organs, we turn to the study of the reproductive system in man and the higher animals, we are immediately struck by the difference in the phenomena attendant upon ovulation; in many animals the periodical congestion of the ovaries and their associate organs gives rise, as we would expect, to increased secretion, and as a result, the discharge from the vagina of a sero-sanguinolent fluid, but in the human female we find at this period an actual loss of blood—here is a deviation from the general plan. Is it one from which the animal can derive any advantage in the struggle for existence? Assuredly not, but rather a disadvantage. Consequently we must search for some other deviation, which, though it may have been the cause of this fault, still confers upon the organism advantages so great as to overbalance the disadvantages entailed.

And here another deviation attracts our attention, and that is the erect position; and in my previous paper I endeavored to show that this erect position was sufficient cause for the periodical loss of blood, claiming "That the increased pressure of blood upon the pelvic organs, incident to the erect position, would carry the periodical congestion of those organs beyond the normal point, and the rupture of vessels and the loss of blood is the result."

I do not mean to apply this to individual cases; I do not claim that if a woman would lie quietly in bed she would not "flow," but let us go back to the time when the primeval woman first began to assume the erect position; then this cause, *i. e.*, the increased blood pressure, would act directly, but the disadvantage entailed would not be so great as to unfit her for the struggle for existence, while the advantage gained by the development of the hand, as a consequence of the erect position, to say nothing of the mental development, gave her an advantage which assured her a pre-eminence over the whole animal creation. Then the organism, not being able to overcome the evil, accepted it and strove to adjust itself to it and fortify itself against it. The fact of a periodical loss of blood was established; it became one of the phenomena connected with the sexual life of the human female, and as such was transmitted from mother to daughter by the law of heredity: so the woman of the present time loses blood at the menstrual epoch through the action of two causes, firstly, the direct cause, *i. e.*, the increased pressure, and secondly, through the inherited tendency to do so. This answers the question which was asked, why a woman who may be bed-ridden throughout her whole life, is subjected to the menstrual loss: the first cause in this case is not active, but the law of heredity subjects her to the heavy tax which all women who have gone before her have paid.

I said that when an organism is not able to overcome or correct a "fault" it strives to accommodate itself to it, and establish a compensating action or condition; is this true of the human organism and the fault of the menstrual loss? I believe so.

Robert Barnes says: "It seems as if every month a state analogous to plethora or an accumulation of blood arose which must be relieved by evacuation." This I believe to be a compensating movement on the part of the organism, and enters as another factor in the solution of the question, why the bed-ridden woman, who has never stood upon her feet, flows at the time of her periods.

There was another question asked, and that was in regard to vicarious menstruation. Given the fact that a woman inherits a tendency to flow at the menstrual epoch, allied to an inherited periodical "Condition analogous to plethora," and under these circumstances, when by reason of some abnormal condition the uterus fails to perform its duty as an evacuant, we must recognize the fact that the blood vessels throughout the whole system are subjected to an increased pressure, and it is not strange that in a very small number of cases rupture of the vessels occurs at some point offering the least resistance and a hemorrhage takes place. So that which is termed vicarious menstruation is in fact an accidental hemorrhage, the result of a weak spot in the organism, and a periodical plethora to which the accustomed relief is denied.

Dr. Wyman: Very much time would be required for man to change from the horizontal to the erect position and this should enable the organs to accommodate themselves to the changed circumstances. God would not permit any very rapid change to take place.

Dr. Eaton was inclined to agree with the paper so far as vicarious menstruation was concerned—the flow being from the weakest part—but did not believe the menstrual flow due to the erect position. He had no faith in the Darwinian theory. The classes of animals remain the same. The horse has always been a horse; the dog, a dog.

Dr. Richards: If Darwin's views are correct—there are strong grounds for believing them—there are many reasons for believing the theory advanced in this paper. Women usually flow most while in the erect position and hence this phenomenon may have originated by change of posture.

Dr. Klein: There having been no previous habit, the change of posture should not induce the menstrual flow. We have no history of the horizontal position of the human female, nor of the constituents of her menstrual discharges during that time.

Dr. Gray doubted if man ever habitually assumed the horizontal posture. We possibly supplanted some other animal, but there is nothing in history to show that women, if they assumed an inverted posture, would not menstruate.

Dr. Brodie is not in favor of the Darwinian theory. Man was created for the erect posture. The arrangements of the joints, muscles, etc., are all well adapted to such a posture, and menstruation is a part of the general design which is perfect. All animals have a preparation for reproduction. In olden times, women were occasionally bled when the flow was deficient to ensure conception. Mares have often been bled for similar purposes, with the happiest results. Menstruation is a matter of original design; it differs from other animals and is materially modified by nerve-influence. Some women have much freer flow while in bed. Monkeys and similar animals menstruate, but the erect position with them is not habitual. The question raised in the paper is very interesting and may be adopted by many.

Dr. Clarke: Is the flow due to congestion?

Dr. Devendorf: During ovulation there is congestion which the weight of blood in the erect position increases.

Dr. Clarke: Niemeyer and others claim that the menstrual flow is due to denudation of the membrane of the internal surface of the womb—a theory somewhat inconsistent with the theory of vicarious menstruation.

Dr. Devendorf: The descriptions of certain fossil remains given by Huxley and others lead us to believe that the horse has not always been a horse. It is assumed that the change of posture was gradual. When women were quadrupedal, they menstruated as other quadrupeds. Monkeys, while sitting, get the full benefit of the erect position.

A vote of thanks was tendered the doctor for his interesting paper.

Dr. Wyman reported a case of Collie's fracture, having a silver fork deformity with considerable loss of use. It has existed about six weeks. Can anything be done for it? Saw one case where pressure removed much of the deformity and gave good results.

Dr. Gray: I know no remedy. There is always deformity.

Dr. Brodie: It is an accident to obtain good results in treating Collie's fractures. Illustrative cases were cited. Dr. Wyman's case should be remedied. He liked Dey's splints in such cases.

DETROIT, Feb. 15, 1883.

The regular session of the Wayne County Medical Society was held this evening, with the president, Wm. Brodie, in the chair.

Dr. Wyman called the attention of the society to the efforts now being made to secure amendments to the city charter which will enable the Board of Health to compel physicians to report contagious diseases, file death certificates, etc.

After a free discussion of the subject, Drs. Wyman, Mulheron, and Klein were appointed a committee to draft resolutions expressive of the views of the society. The committee reported the following preamble and resolutions, which were unanimously adopted:

WHEREAS, The Senate and House of Representatives of Michigan have under discussion a bill for amending that portion of the Detroit city charter defining the powers of the Detroit Board of Health, therefore

Resolved, That the Wayne County Medical Society protests against the passage of any law extending the powers of the Detroit Board of Health, by which physicians shall be required to render services in connection with death certificates or notices of contagious diseases, without recognition of the right of compensation for such services, believing that unpaid compulsory service is subversive of constitutional and individual rights.

Resolved, That in forcing the said bill before the Legislature, without previously laying before the physicians of this city the contents and import thereof, the Detroit Board of Health has been guilty of an arbitrary and unjustifiable procedure.

Resolved, That a copy of the above preamble and resolutions be sent to the city press for publication.

Drs. Wyman and Klein were appointed a committee to present this matter to the Legislature at Lansing in the manner deemed most expedient.

W. H. Rouse, M. D.,
Secretary.

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Meeting of Detroit Academy of Medicine.

DECEMBER 12, 1882.

The Academy met at the residence of the secretary, President Bradley in the chair.

Dr. Wyman read an interesting and suggestive paper on the Surgical Treatment of Lung Diseases.*

Dr. Gilbert: I do not think the analogy holds good between diseases of the lungs and those of the joints. In the latter we deal with a local affection, and may employ purely local measures. In the former, the disease is often only a local manifestation of a constitutional trouble. The doctor says that nature points out as one measure in treatment, immobilization of the lung—accomplished as we so often observe by pleural adhesions.

I am skeptical about the efforts of nature toward effecting the cure of disease. The disease is a natural process; the art of medicine consists in interfering with the processes of the physician, nature.

The doctor urges the importance of suppressing cough, even by mechanical means or by surgical interference of a somewhat heroic kind. In this case it seems to me that he would interfere injuriously with nature. The cough is nature's mode of affording relief to the lung oppressed with accumulated secretions. How are these to be removed if nature is frustrated in this effort?

Of one thing, in the treatment of pulmonary complaints, I am certain. Medication is of little use. It is nourishment above all things that these patients require. As long as the patient is losing flesh, our prognosis must be grave; if the weight is stationary or increasing, the patient is doing well. Whatever will enable the patient to take and digest and assimilate more food, will improve his condition. Medicines cannot do this, and clinical experience shows that it is cod liver oil, and such hygienic measures as tend to improve nutrition, that we must rely upon—not medicines.

Dr. Connor: The subject of Dr. Wyman's paper is one which is forced upon the attention of the physician oftener than he desires.

Surgical procedures in the treatment of pulmonary difficulties have been resorted to for many years. Among the earliest instances in modern surgery, is the operation introduced by Dr. Bowditch for the withdrawing of accumulations of inflammatory products in the pleural sac. As far as my observation goes, this operation is rarely made or required in the State of Michigan, although the conditions indicating it are much more common in the East, at least in the vicinity of New York City.

Dr. Wm. Pepper years ago advocated the introduction into cavities in the lungs of antiseptic substances.

It has been claimed that confining the lungs by straps and bandages, etc., is beneficial, and I do not doubt that these and other methods of surgical procedure may be sometimes of use. But they are not of general applicability. We expect that the patients will die ultimately, in any case.

Those methods of treatment, or rather those modes of life which call in play the most muscles, which give the largest supply of pure out-door air, and introduce into his system the maximum amount of nutriment, are the most successful, in that they give the longest lease of life, and the most freedom from suffering.

Hence the value of the climate cure for consumption; hence the drain upon the genus Gadus, for the nourishing oil that their livers afford.

These clinical facts have an important bearing on some of the questions recently mooted in regard to the etiology of phthisis. If the views of Koch are true, I do not see how they are corroborated, at least by the fact that the line of treatment indicated is successful, for food and air and exercise can do little towards destroying the bacillus tuberculosis. If, however, we take the view that phthisis results from some defect in the constitution, either inherited or acquired, we can understand the value of the hygienic plan of treatment.

It seems to me that the observations of Dr. Formad give us an insight into the true pathology of phthisis. His view is based upon the observation that in certain animals especially susceptible to tuberculous disease or infection, the lymph channels and lymph spaces are unusually contracted, while in other species immunity from tuberculous disease is associated with a well developed system of lymph ducts. He believes that a similar distinction may account for constitutional differences in individuals. Thus in certain persons the lymph channels and lymph spaces are narrower than in the normal condition, and are unable to take up or carry off any excessive amount of effete material. If in such an individual any inflammatory process is set up, there will soon be an accumulation of dead protoplasm which will constitute tubercular masses. In such persons all inflammations are necessarily "tubercular" in character.

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*Published in the February number of the Lancet.

The plan of treatment which naturally suggests itself in view of such a pathological condition is that which in practice is most beneficial to tubercular patients. We send them south, or to some equable climate, where they will be little liable to inflammatory attacks. We advise exercise, and abundance of fresh air, and even very bad cases improve —nay, actually recover—under this treatment.

The views of Dr. Formad, therefore, I incline to accept because they fit in with our knowledge drawn from clinical experience of the conditions which secure improvement and even recovery in these cases.

It seems to me, besides, a satisfactory doctrine and a hopeful one to believe in and work upon.

Dr. Yemans asked: Is it Dr. Formad's theory that the lymph channels are blocked by an organizable material?

Dr. Connor: It results from an accumulation of necrosed matter.

Dr. Maire: What do you understand by cure of tuberculosis; arrest of the deposit, or absorption of it?

Dr. Connor: I mean that the lymph system is enabled to perform again its function.

Dr. Maire: If tuberculosis is due to the invasion of a bacillus, how can we explain its hereditary character? We have all of us seen again and again the members of a particular family attacked one after another with the disease on attaining a certain age. I remember one Scotch family in which there is now but a single survivor, and that one has been kept alive during the last six years only by the persevering use of cod-liver oil and whisky.

Where famines are common, as in Ireland, we often find the children of those who have survived the famine, and who themselves live perhaps to a good old age, attacked early with tuberculosis. I have often seen instances of this in Irish patients whose parents suffered from starvation in the famine of 1848.

While severe cases are much benefited by cod-liver oil, others cannot assimilate it, and such patients derive no benefit from it.

The constituents of cod-liver oil are those found in the ordinary food, traces of iodine, phosphorus and calcium salts, besides the oil itself which furnishes a concentrated carbonaceous food. With some patients whisky may be combined with the oil with decided advantage, and sometimes where the oil alone is not well tolerated the addition of wine obviates that objection.

Dr. Wyman: The object of my paper was not to discuss in general the treatment of pulmonary diseases, but rather to point out certain indications of treatment which can only be accomplished by surgical interference. I wished especially to dwell on certain cases of phthisis which do not get well under any treatment, but where much of the suffering is directly dependent upon the cough, and especially where the persistent cough, ineffectual in itself, is the cause of grave complications.

Nature's plan in the treatment of pneumonia secures complete rest to the portion of lung involved. The secretions are no longer removed by expectoration, but must ultimately be absorbed. I thought the hint might be followed with advantage in treating localized inflammations of the lung, tubercular or otherwise, by securing immobility of the organ.

I have made some experiments on animals to ascertain what can be done by surgical means in the direction indicated. I am certain that by section of the rectus abdominis, not in itself a very formidable operation, we can render coughing impossible.

Dr. Connor: Apropos of surgical treatment of lung diseases, the latest thing I have seen in that line was a case in which the doctor removed a portion of his patient's lung to relieve emphysema. The cavity of the chest was too small, he said, to hold the lungs. The patient died.

I think it is hardly fair to make a comparison between an inflamed joint and a pulmonary inflammation whose peculiarity is that it results from a general cachectic condition.

As regards the curability of consumption, we have probably all seen cases in which recovery, even from an advanced stage of the disease, has taken place. I remember an instance—that of a young man who as a student was apparently marked for an early grave. His parents had died of phthisis, and he himself had cough, hectic, night sweats—in short, all the symptoms of pulmonary consumption. I had learned while in college, shortly before, how Prof. Monroe, of Boston, had won back vigor after he was apparently far gone in consumption by engaging in a systematic course of vocal gymnastics, and I thought I would try the virtue of his remedy upon this young man. The result was completely successful and the youth is now a man seemingly in vigorous health, actively engaged in mercantile business.

Adjourned.

February 13, 1883.

The academy met at the office of Dr. Cleland, the vice-president occupying the chair.

WRITTEN COMMUNICATIONS.

A paper by Dr. Munson, of Pontiac, a former member of the academy, was, with his permission, read before the society. It contained details of three cases in which insanity (lypemania) developed in connection with Addison's disease.

Dr. Emerson being invited to participate in the discussion said: I can say very little on this subject, having never seen a case of Addison's disease at the asylum. I think Dr. Munson's statement that persistent delusions of suspicion, etc., are evidence of serious organic disease is more sweeping than facts will justify.

Dr. Andrews: I have seen only one or two cases of Addison's disease. One was a patient who was in the hospital in the war time. The pigmentation was well marked. There was the characteristic anæmia and general debility, but the case went from under my observation before it came to its conclusion.

It seems inevitable that when there is grave disturbance of nutrition, the mental faculties should become impaired. Mental depression is a frequent concomitant of serious organic diseases, and may pass into insanity.

Dr. Noyes: I have seen but two cases of Addison's disease, and those while I was in Europe. In this country I believe the disease is rare.

I must call attention to one thing. I observe that alienists as well as others use words ambiguously. They speak of the mind as an entity, and talk about disease of the mind. Disease of the brain I can understand, but I do not know what is meant by disease of the mind.

Dr. Gilbert: There was one case of Addison's disease, if such it was, which was brought before the class at Detroit Medical College some years ago. The hair of this patient had become woolly. There was bronzing of the skin; later the patient suffered much from dyspepsia, became irritable and suspicious, although not absolutely insane. He finally died, the symptoms all having become progressively aggravated, but I do not know certainly that the case was one of Addison's disease.

I do not see how we can do better than to speak sometimes of mind as an entity; certainly the mind is not the brain. One thing I cannot understand—mental aberration as a disturbance of cerebral function. There must be organic lesion giving rise to the functional disorder.

Dr. Connor: Aside from the case of Addison's disease which Dr. Gilbert has spoken of, I have seen but one case in Detroit, and that only once or twice in consultation. As a student while in New York I saw a number of cases. I was much interested in the cases reported by Dr. Munson, and particularly so owing to the evidence his paper shows of a disposition to make a careful study of the cases which come under his observation at the asylum.

In regard to the connection of mind and brain, I can perhaps explain my position best by describing an illustrative case. Two years ago a young physician who is practicing in this state came to me in great despondency. He was a victim of persecution—was ready to give up the practice of medicine, and apparently on the verge of insanity. To all appearances the doctor was in perfect health, and there was no obvious cause for his mental depression. I had some time previously examined his eyes, and fitted him with a pair of compound astigmatic glasses, which I noticed that he was not wearing. He said that he had lost them. I directed him to supply himself with another pair. Two months later I saw him again, and found him a different person altogether. His mental depression had all disappeared, and he was pursuing his work with all the old enthusiasm and satisfaction. Now I think it is clear that in this case there was no organic lesion of the brain, although there certainly was functional disturbance. The impressions conveyed by his defective eyes to his brain created confusion of ideas of which he was not distinctly conscious, and yet which undoubtedly produced the delusions which were fast possessing his mind. Why should not similar disturbances be induced by abnormal conditions in other parts of the body? Whether the disturbance in its inception be of central or of peripheral origin, its effects are at first evanescent in character; they disappear with the cause which produced them. It is only after they have persisted for a certain length of time that cerebral changes of a permanent character are produced. We may suppose that at first only the protoplasmic matter is affected, and we speak of the derangement as functional. Later we find structural changes, which constitute what we call organic lesions.

Dr. Emerson: The idea that the words mind and brain are synonymous arises from a misconception of the meaning of those terms. An idiot has a brain, but he has very little mind. The mind is dependent on the brain, but it involves something more than mere functional activity of the brain cells. There must be self-consciousness—a personality—not the mere cerebration.

Dr. Cleland in exhibiting an interesting pathological specimen from a patient who died from stricture of the bowels, gave the following history of the case: The patient was an elderly gentleman whom I had been called to attend some months ago in an attack of colic, to which he was somewhat subject. The usual remedies afforded relief, and I should have given no especial attention to the attack but for the subsequent history of the case. A later attack was characterized by persistent vomiting, which I somewhat relieved, but which lasted three days. The patient had no movement of the bowels during this time, nor subsequently for three weeks. After that he had occasional passages, which seemed to indicate that the obstruction, whatever it may have been, had been removed. He still had occasional attacks of vomiting, however, and the last one persisted in spite of all treatment until the patient's death. The ejecta consisted of dark grumous matter without fecal odor.

Post mortem examination revealed the existence of a stricture situated about five feet eight inches above the cæcum. The stricture was caused by a fibrinous band, and the bowel was almost completely occluded. A portion of the intestine five feet in length was in a gangrenous condition. There was much adhesion of tissues, and a large amount of inflammatory exudate, with thickening of the tissues.

Dr. Gilbert: Had there been any inflammatory trouble of the bowels previously?

Dr. Cleland: There was no history of any such trouble.

Dr. Wyman: Dr. Cleland's case was one of unusual interest. The patient had suffered for years with attacks of abdominal pain, which was most severe in the region of the umbilicus, radiating thence over the abdomen. There was a hard ridge to the left of the umbilicus, giving exquisite pain on pressure, but there was no evidence at any time of inflammatory action. There was perforation of the intestine, and pus was present in the abdominal cavity, and during the post mortem examination pus and fluid from the lower bowel were seen to escape from the perforation.

Adjourned.

A. B. Lyons, Sec'y.

Calhoun County Medical Association.

The first quarterly meeting of the Calhoun County Medical Association, for the year 1883, was held at Battle Creek, March 6th. The meeting was called to order by the president, and roll call showed the following members present: Drs. Crosby and Bristol, of Albion; Drs. Green and Smiley, of Marshall; Dr. Seeley, of Chinax; Dr. Case, of Marengo; Dr. Kezartee, of Ceresco; and Drs. Tomlinson, French, Alvord, White and Sprague, of Battle Creek.

The minutes of last meeting were read and accepted after a slight amendment.

Dr. John E. White, of Bedford, was also present, and was admitted to membership by vote of the society.

Dr. Crosby reported several mild cases of measles, but nothing else of special importance in his vicinity.

Dr. Seeley reported epidemics of measles, whooping cough and mumps—the last quite severe.

Dr. Sprague reported many cases of measles and follicular tonsillitis in and about the sanitarium, and a peculiar disease of which several cases had appeared.

A young woman in apparently robust health was taken sick with sore throat and fever, such as is present in follicular tonsillitis, to which symptoms were added vomiting and purging. On the second or third day a scarlet rash appeared on the face, chest and arms, soon extending all over the body.

Scarlet fever was feared, and the patient was at once quarantined, though there had been no possible exposure unless by transients looking through the building. Yet when the patient recovered there was no desquamation or sequelæ which are so apt to follow scarlatina. There were no other cases in the time that they would be expected to appear, had it really been scarlet fever, but since then there have been similar cases at intervals of two or three weeks, in and about the institution. He had also learned through a teacher in a boarding school, near Boston, that nearly all of the thirty or forty students had follicular tonsillitis during the past few weeks, while a few had the vomiting and purging and scarlet rash that made them fear scarlet fever. What was it?

Dr. Crosby reported the case of a young girl who was similarly sick—an eruption, with no desquamation—whose sister was subsequently sick with sore throat and had no eruption. He had called the first case scarlatina, but was very doubtful if it was a correct diagnosis.

Dr. Kezartee reported a good deal of follicular tonsillitis, with more than usual exudation in many cases.

Dr. Green read a paper on Treatment of Lacerations of the Perineum. He received a vote of thanks and a request that a copy might become the property of the association.

Dr. Alvord agreed with the paper in thinking that more harm than good has been done in very many cases of this operation. Says that Drs. Murphy and Stone, of St. Paul, expressed similar views at the association meeting in St. Paul. He expressed doubts whether it was ever advisable near the meno pause or with very feeble patients. Commends Dr. Green's careful discretion in the choice of cases, but takes exception to the opinion that carbolic acid is such a serious poison. Thinks Dr. G. is too much inclined to follow the prevalent fashion of accepting the bugbear representations so often made when a thing begins to meet with popular disfavor. Believes there is much less poisoning from it in the hospitals than is represented.

Dr. Green stated that at least the antiseptic properties were proven to be very small, and his personal experience had proved its poisonous properties.

Dr. Sprague thinks that the slight lacerations spoken of as being liable to escape detection when examination is made in the third stage of labor will be likely to repair themselves as involution takes place, and that an operation on the cervix could hardly heal by first intention, while the discharges are so profuse and the uterus is contracting by afterpains. He agrees as to the wisdom o foperations on the perineum at this stage, if necessary, but thinks the cervix would better be left until later. Also thinks that the use of caustics in treating cervical lacerations is to be condemned and cites the many cases that come to the sanitarium where caustics have formed such hard cicatrices and so many reflex nervous symptoms. Thinks that all cases should undergo operation unless milder treatment will remove all erosion and ectropion, and even then if the cases show a disposition to relapse.

Dr. Green thinks that if the caustics are used no oftener than once in a week there will not be sufficient cicatricial tissue to cause trouble. Says that Dr. Martin, of New York, advocates operation on the cervix at once, and he favors the idea.

Dr. Bristol asks if an operation for laceration of perineum involving the whole sphincter ever proved a success with any of the members when the operation was performed immediately after labor. Says he has made a failure in several such cases.

Dr. Alvord has several times been successful in such cases.

Dr. Seeley has seen successes.

Dr. Sprague thinks success is less certain than at a later period.

Dr. Alvord thinks it is not, if the operation is skilful. Thinks that the primary operation is *the* operation.

Dr. Kezartee read an article on "Hydrastis." Said it was a powerful tonic and seemed to exert a special influence on mucous membranes. The latter action is said to be due to the white alkaloid, hydrastia, while its tonicity is due to the yellow berberina or hydrastin alkaloid. Has employed it in many ways for treating mucous membrane, and with considerable apparent success.

Several members testified to its efficacy for treatment of catarrhal troubles wherever they occur, gonorrhœa, etc.

A vote of thanks and a request for a copy of the paper were tendered Dr. Kezartee.

The committee on necrology reported the death of Dr. Cox, and it was moved and carried that a special committee be appointed to draft resolutions relative to his death and its influence upon our society. Drs. Montgomery, Green and Crosby were appointed and presented the following report, which was unanimously adopted:

WHEREAS, It has pleased Almighty God to remove from our midst our beloved brother Dr. Edward Cox, therefore,

Resolved, That while we bow submissively to His will, who doeth all things well, we desire to place on record our appreciation of one who stood in the foremost ranks of our profession. Dr. Cox was endeared to us all as well by his warm hearted sympathy with his professional brethren as by his strict observance of that courtesy so essential to the maintenance of good fellowship among physicians.

Resolved, That in the death of Dr. Cox our association has lost one of its founders, a most faithful friend, and one of its most earnest, constant and energetic workers; at one time its presiding officer, always present at its meetings, adding much to their interest by his able discussions of the topics presented, and often contributing valuable papers.

Resolved, That Dr. Cox was a man of strong and decided convictions, firm in the maintenance of what he believed to be right, an honorable, manly man, and a true Christian gentleman.

Resolved, That the members of this association extend to the family and friends of Dr. Cox our sincere sympathy in this their sad bereavement.

Resolved, That a copy of these resolutions be entered at large upon the journal of the association, a copy be presented to the family of the deceased, and a copy furnished to the Battle Creek papers for publication.

J. H. MONTGOMERY,
G. H. GREENE,
AMOS CROSBY,
Committee.

Dr. French related an interesting case of spontaneous gangrene necessitating amputation of the arm and resulting in recovery. It was without any assignable cause and in an apparently healthy laborer, the pain beginning a few days before he stopped work and about ten days before amputation became necessary.

The society adjourned to meet in Marshall on the fourth Tuesday in May.

W. B. SPRAGUE, Sec'y.
MARK W. TOMLINSON, Pres.

Health in Michigan.

For the week ending February 17, 1883, the reports indicate that cholera morbus and typho-malarial fever increased, and that scarlet fever, consumption, intermittent fever, measles and tonsillitis decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending February 17, were southwest and west; and, compared with the preceding week, the temperature was considerably higher, the absolute and relative humidity more, and the day and night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending February 17 and since, at 14 places, scarlet fever at 9 places, and measles at 9 places.

A correspondent reports what he thought was a case of arsenical poisoning: Face, eyes, hands and feet swollen, skin pale and cool, great fulness of the head, uneasiness of the stomach, gaseous eructations and loss of appetite, soon regained. Analysis of substances supposed to contain the poison demonstrated absence of any, and it was suggested that acute Bright's disease caused the symptoms. Other cases, presenting similar symptoms, have been reported, some of them supposed to be epidemic influenza. Perhaps if physicians make careful examination of the excretion from the kidney in such cases it may lead to useful knowledge respecting the disease now prevalent. One physician reports that such examinations, made because of unusual prevalence of partial suppression, showed absence of albumen.

One case of measles was found among immigrants arriving at Port Huron during week ending February 17.

For the week ending February 24, 1883, the reports indicate that intermittent fever and pneumonia considerably increased, that influenza, tonsillitis and whooping-cough increased in area of prevalence. There was no marked decrease in any disease reported.

At the state capitol the prevailing winds during the week ending February 24 were southwest and west; and, compared with the preceding week, the temperature was lower, the absolute and relative humidity and the day ozone less. The night ozone was slightly more.

Including reports by regular observers and by others, diphtheria and scarlet fever were each reported present during the week ending February 24, and since, at 16 places, and measles at 11 places. One case of small-pox was reported at Detroit February 24.

A correspondent who reported a case of cerebro-spinal meningitis in week ending February 10, reports that it was a girl aged 11 years. She first had "stiff neck," followed by vomiting, diarrhœa, severe headache, convulsions and death in 18 hours. Four members of her family had, at the same time, "hard colds;" and excepting measles, influenza was reported the most prevalent disease at that time and place. This coincidence of influenza and cerebro-spinal meningitis is mentioned in order to suggest watchfulness for further facts.

For the week ending March 3, 1883, the reports indicate that consumption increased, and that remittent fever and typho-malarial fever slightly increased in area of prevalence.

At the state capitol the prevailing winds during the week ending March 3, were northwest; and, compared with the preceding week, the temperature was higher, the absolute humidity slightly more, the day and night ozone more, and the relative humidity less.

Compared with the average for the month of February, in the preceding six years, erysipelas and neuralgia were more prevalent, and remittent fever, pneumonia, diphtheria and whooping-cough less prevalent during the month of February, 1883.

For the month of February, 1883, compared with the average of corresponding months in the five years 1879–1883, the temperature was lower, the absolute humidity and the day ozone less, and the relative humidity and night ozone more.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 3, and since, at 12 places, scarlet fever at 16 places, measles at 9 places and small-pox (one case) at Detroit, March 3.

For the week ending March 10, 1883, the reports indicate that measles and bronchitis increased, and that erysipelas, intermittent fever and consumption decreased in area of prevalence. The reports also indicate that there was a general decrease in sickness.

At the state capitol the prevailing winds during the week ending March 10, were southeast; and, compared with the preceding week, the temperature was lower, the absolute humidity and day ozone less, the night ozone considerably less, and the relative humidity the same. With one exception in each case, the range of temperature and the range of barometer was greater than in any week during the past year.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 10, and since, at 14 places, scarlet fever at 19 places, and measles at 17 places. Two cases of small-pox at Detroit March 14.

Henry B. Baker,
Secretary.

Lansing, February 15, 1883.

Correspondence.

An Unusual Case.

On Wednesday, February 7, 1883, I was requsted by Dr. F. W. Owen, county physician, to make a post mortem examination of Carter Dowling, a colored porter who died suddenly while attending to the stove in the palace car "Monroe." According to the statement of other employés in the car, a sudden hæmorrhage occurred as deceased was in the act of stooping to attend to the fire. Deceased was a mulatto, æt. about 35, fairly well nourished and the chest bore traces of former blistering. The clothing was drenched with blood which had coagulated. The vest was heavily padded on each side with thick woolen cloth. Upon opening the thoracic cavity the lungs were found to be healthy, although noticeably pigmented. The heart was healthy, empty and firmly contracted. The stomach was found to be full of coagulated blood containing about three pints. Kidneys, liver, and spleen were found to be in a healthy condition. Further examination revealed a sacculated aneurism of the aorta extending posteriorly from the junction of the transverse and descending portions of the aortic arch. The aneurismal sac was an approximate cylinder, one end communicating with the aorta and the other adherent to the œsophagus, and was about one and a half inches long and about an inch across the opening. The wall of the sac where adherent to œsophagus was ecchymosed in several places and degenerated so as to be easily ruptured at these points; a V shaped rupture had occurred at one of these spots, whence the hæmorrhage. Each arm of the rupture was about four lines long.

I have been unable to secure the previous history of the case. The traces of blistering and the padded vest, suggest that he referred trouble to the lungs, possibly on account of pain, stridor or metaphonia. It is not unlikely that he might have suffered dysphagia either from the pressure of the tumor or from the irritation in the septum itself. This suggests the possibility of trouble which might have occurred if an inexperienced physician in exploring the œsophagus with a probang or soft catheter should have accidentally produced the same result which nature finally effected. Flint in his work on the diseases of the heart points out this danger saying that such accidents have occured.

Chas. L. Lang, M. D.

LAINGSBURG, Mich., March 22, 1883.

L. Connor, M. D.:

MY DEAR DOCTOR—"The good die soon." Doctor Farrand has gone, poor fellow. I knew him and went to school with him when a boy—and ever and anon the fatal shaft strikes with a dull thud so close to us that it makes us shudder.

Knowing this fact relative to the uncertainty of life among the good (I have felt a trifle shaky on my pins myself of late), and fearing that I might be called away somewhat prematurely, I want to communicate a fact, relative to the administration of copaiba, which I fear is not sufficiently known. The universality of its use and difficulty of its administration demands attention.

It has been my practice for years to give it in combination with ess. wintergreen, with which it mixes perfectly in any proportion, provided the vial is free from water, and the drugs of good quality. By dropping this mixture on sugar, and washing it down with water, the taste is concealed perfectly, and it is very much more convenient than the emulsion or capsule.

Very respectfully yours,
E. B. WARD, M. D.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Practical Operation of the Marine Hospital Service During Epidemic Yellow Fever.

IT is well known that Congress has given $100,000 to the Marine Hospital Service for use during epidemics. Further, it gave nothing to the National Board of Health. Last season there was at Brownsville, Texas, an epidemic of yellow fever, and the Marine Hospital Service took charge of the town. What were the results? The *Sanitarian*, March 8th, gives a corresponence between the mayors of Pensacola and Brownsville, fully answering this question. We could hope for the credit of the Marine Hospital Service that it could be shown that this correspondence does not represent the truth. But then the facts are stated over the signature of the mayor of the afflicted town and it is not easy to see how he could be mistaken, or dare to misrepresent. He says: "In my opinion this community (Brownsville, Texas), received no benefit from the Marine Hospital Department, other than that involved in the employment of some thirty persons—who would probably otherwise have been idle—as quarantine guards and in the personal services of three of the physicians who accompanied Dr. Murray to Brownsville as assistants. For a short time after his arrival, Dr. Murray's personal services, as a physician attending the sick, were also of great value; but on the establishment of his quarantine, his entire time appeared to be occupied by matters in connection with that duty. As an offset to those benefits and advantages we had the arbitrary assumption of control of quarantine matters by Dr. Murray and his attempt to override the local health authorities, the inconvenience of the useless restrictions imposed by the quarantine, and the injury caused by that institution, when as our election day approached, it drifted into a mere political machine, and was used for the purpose of facilitating the election interest of candidates supported by the custom house district. Two days after the election it disbanded. On election day sixteen of its members were interested as candidates, or occupied as supervisors of election and deputy marshals, and the remainder as runners or supporters—all, however, on the same side." We have not space to further quote the mayor's exact words. But the supplies of medicine, nurses, and physicians, furnished by the Marine Hospital Department were utterly inadequate and unfit for the end desired, the caring for the sick, so as to restore them to health, etc. The nurses brought by this department became the very terror of the sick. The quarantine not only did harm, but was so inefficiently kept as to be of no use. This is apparent when it is borne in mind that the line attempted to be kept by twenty-eight guards was seventy miles long. Besides most on guard knew nothing of the topography of the country.

The Marine Hospital Service brought to Brownsville accommodation for about thirty patients, while there were over five hundred sick from yellow fever at one time. It confined its attention to the sick in hospital, while nine-tenths of the sick poor would not go to the hospital. Thus it appears from these facts which have not been disputed, that the aid furnished by this service was of more harm than good, except to the political party having special persons it desired to reward for political services. Congressmen are of course interested in the appropriation of money which will add to their political patronage, but they are not interested in that which pertains to the public good. Hence the National Board of Health has been compelled to step down and out, while the Marine Hospital Service steps in and carries off the money, to be used where it will most benefit the attaches of the Treasury Department. So at least it appears to disinterested parties. No doubt the interested ones see it differently, but they will find it difficult to convince the masses of the correctness of their views until they disprove the facts to which we have directed attention.

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Medical Legislation in Michigan.

A copy of the Senate bill to regulate the practice of medicine in the State of Michigan lies before us. It was introduced into the senate by Senator Hueston. Its principal features are: (1). Every rascal practicing medicine at the time of passage of the bill into a law becomes a legally recognized physician and surgeon. (2). Each state senator appoints or nominates three persons in his district who shall constitute a board of examiners for such as desire to practice medicine in each district. These appointments are ratified by the governor. Each member after the first nominated are to serve for six years. The persons appointed are to be graduates of some school authorized to confer the degree of M. D. These boards meet three times a year for the examination of candidates for the practice of medicine. The board is to be nominated just as the senator pleases, although it is said that it must be without pathy or party.

Besides this local board there is to be appointed by the governor a central board of three persons. This central board acts as a guide to the separate boards. Thus it is to furnish the questions which the local boards are to ask candidates. It acts as referee in cases where candidates think they are not fairly treated by the local boards.

Among the other duties of the local boards are the examination of the genuineness of diplomas. No authority is given to discriminate as to the value of diplomas. All that is required is to find that the holder obtained it as he claims. Diplomas or their affidavits may be presented by letter or by proxy.

After examination the local board can issue a certificate to practice medicine in the state of Michigan. These certificates must all be registered in the office of the county clerk. Certain fees are ordered to be paid by the applicants for certificates, which fees are to remunerate the members of the several boards for their labor. Nostrum venders and traveling doctors will be compelled to pay one hundred dollars per month.

Fines and imprisonment are provided for such as shall break the provisions of this law. Such are the principal features of this bill. We are safe in saying that this bill is desired neither by the profession nor by the people. If enacted it will be simply a dead weight upon both parties. If it was provided that a series of detectives should be appointed by the state to see that these provisions were carried out we might look to see whether the bill operated wisely or otherwise. But there is not one chance in a thousand that any other person will look after its execution except to gratify his spite or rid himself of a rival.

The medical profession of Michigan is far better off than the profession in any state having a law regulating the practice of medicine. When will we ever learn that a profession must look out for itself, and seek no farther connections with the law than those afforded by the common law applicable to every citizen? If the people want to drive out quacks let them do it their own way. When they do this they will have the governor appoint a single board who will grant no licenses to practice medicine until the applicants have passed a complete examination on all the branches of medicine and surgery and demonstrated that they are of such a character as to be worthy to fill the mission of physician. Nothing else than this affords a chance to do more than involve the profession in degradation and the people in delusions. Such a bill as this could not be passed by our legislature, so that the whole matter had better be dropped and the profession devote its energies to the caring for the sick and the education of the people so that they may avoid sickness, and incompetent persons acting as doctors.

A bill to establish a department of eclectic medicine at the University of Michigan has been introduced into the legislature. None that have favored the establishment of the two medical schools already there can object to the addition of this proposed one. This being placed upon its feet, we may expect to see a move for a school of spiritualism, etc. Why not?

To meet this tendency of things a bill has been introduced into the legislature to abolish all the professional schools in the university. This bill has a large following, but it is scarcely probable that it will be passed at this session.

Another bill seeks to place the care of the new Insane Asylum at the north in the hands of the homœopaths. A bill is also on hand to amend the dissection act of 1881. Then there is a bill which alters the method of collecting vital statistics throughout the state. This is an excellent ordinance and we hope it may become a law. But the ordinance for enlarging the powers of the boards of health in cities, strikes us as entirely uncalled for and vicious in the extreme, especially as it will place the health authorities and physicians in direct antagonism, and so lose for the health boards that hearty co-operation of the profession so needful for their success.

Thus it appears that there are a considerable number of bills before the legislature, bearing directly upon the interests of the medical profession. We very much question whether any good will come from the entire mass of legislation. The most that the medical profession needs is to be let alone. As a body of private citizens it should stand upon its simple merits. If it cannot thus stand it had better fall first as last. This remark will, of course, apply to the abolition of such laws as have formerly been enacted, giving physicians special rights at the public expense. The sooner these laws are done away with the better will it be for all parties.

The Michigan State Board of Health.

As certain as our legislature meets some persons seek the immortality of "bad acts" by striving to induce the legislature to abolish the State Board of Health. Just here lies the weakness of our best institutions, viz., they depend upon the intelligent good sense of the people and through them upon the good sense of the average legislator. In Massachusetts the same acts were strikingly exhibited. For years Massachusetts had the best board of health to be found anywhere. But the people were not sufficiently educated to recognize a good thing in this line when they saw it. Hence the legislature after a time so combined it with other organizations as practically to deprive it of much of its power for good. Since then little has been done in the line of general advancement of public health interests by the state of Massachusetts.

We had hoped that by the great exertions put forth by the Michigan State Board of Health, the people and the legislature would be so educated as to be able to appreciate the value to them of the State Board of Health. Once appreciated at a quarter of its real value to the vital interests of the people of the state, nothing could destroy this board. It has been and is constantly studying the causes that mar the prosperity of our people, and devising means for their removal. In large numbers of instances it has removed these causes, to the saving of property vastly greater than the entire cost of the state government including the cost of maintaining the Board of Health. But more than this, it has been the means of directly or indirectly saving in health and vigor, thousands of active lives. Besides all this, to a degree which cannot be measured, it has brought the peace and happiness which ever results from assured health. But there is still indefinitely more to do in the same direction. To keep its citizens well, enhances vastly the prosperity of any state. Michigan is rapidly developing its vast domains. To have the wise councils of a State Board of Health respecting the thousands of questions that are sure to arise is to the highest degree important to the well being of the people. To be able to give wise answers to the queries that are constantly being made requires special study of the peculiar conditions of any special locality, etc. The are no persons who can afford to make this study except a board constituted as this board in question. When people are sick there are doctors to care for them. These doctors will also do all they possible can to unravel the cause of disease. But from the very nature of their duties their studies must be confined to a narrow sphere and so be more or less imperfect. Besides there are many sources of disease that they cannot reach at all. To study out these and warn the people of them has been and is the constant aim of this Board. A vast amount of the same kind of work still remains to be done. Eternal vigilance is the price of public health. It will be simply suicide for the people to abolish or at all curtail the work of this board. While the ship sails there is need of a pilot, and of a captain. While so many dangers threaten, unknown in their nature and tendencies, is it a time to send the pilot and the captain to work in the hold, and let the ship drift with the wind and tide? We cannot, we will not believe that the present legislature of Michigan is so ignorant and so devoid of common sense as to seriously entertain the proposition to abolish or cripple the State Board of Health.

Not having any other interest in this Board than that of a private citizen, we are able to look at and estimate it from an outside standpoint. As a citizen of the state we have been and are proud of the past record and present usefulness of this body.

The Relations of the General Practitioner to Free Hospitals and Dispensaries.

In the *British Medical Journal*, March 3, 1883, Dr. W. Hickman, President of the Harveian Society, presents several considerations bearing upon the above inquiry. That free dispensaries and hospitals, and clinics do exert a deleterious effect upon the medical profession there can be no question. Only when any specific institution or individual is pointed out the interested party says that he is right and all others are wrong. The remedies suggested for the relief of this acknowledged evil are many. The interested persons say the proper method is to forbid all other persons from engaging in this nefarious practice.

Dr. Hickman thinks that the cause of this evil lies with the medical profession itself. Thus he says, "The public did not require nor demand gratuitous medical services. The philanthropic founders and supporters of the old hospitals made liberal provision for the remuneration of the medical staffs whom they attracted by a liberal pay and dignified position. It never entered their heads that the doctors, more than the butcher or baker, should give services for nothing. The medical profession itself, which thrust its gratuitous services on an almost unwilling public, was really responsible for this state of things. The large and increasing number of hospitals and dispensaries is not an evidence of the intense interest taken by the profession in the poor, nor is the large amount of time and labor gratuitously devoted to their service simply an index of disinterested philanthropy of medical men. The object of this interest and of these services is not the benefit of the poor, nor of the profession, but the particular benefit of the individual, who looked forward to be amply repaid in the future, by increased experience, enhanced reputation, and the legitimate advertisement of himself, which is almost the only opening to a high class practice and high class fees.

The large majority of new hospitals, dispensaries and other medical charities originated within the last fifty years have been founded by medical men, with a view to their own advancement, utterly regardless of the injury done to their medical brethren, and reckless of the injurious consequences to the poor themselves of indiscriminate charitable relief. There would seem to be little difference between the man who started a free dispensary and scattered handbills with his name and qualifications all over its neighborhood, and the man who established a special hospital with a grand committee of his influential and sympathizing friends, and sent out far and wide prospectuses and begging letters, advertising his name and specialty amongst paying classes whom it was his real design to reach."

Such are the views of an English physician upon the condition of things in this country. Each of our readers can determine for himself whether the picture in whole or part will apply to the United States. A prominent lawyer in Detroit told the writer that many years ago he spent a considerable effort in the endeavor to get for city physicians a good salary for their work. But he said the medical profession spoiled the whole matter by offering to do the work at less than a quarter of the sum called for. Since then he has let the medical profession look after its own interests.

Cheap Medical Schools—A Source of Demoralization to the Medical Profession.

The low condition of the medical profession has been, and is a source of anxiety to very many in it who yearn to have it exert greater influence and occupy a higher position. Bearing upon one phase of this decadence are the following remarks of President Eliott, of Harvard College. Speaking of the danger of making it too easy or too cheap for young men to enter the professions, he says: "We have before us an example of a great and noble profession which has been deeply injured by beneficiary endowments. I mean the clerical profession, a profession in which there is the greatest dearth of great men, although as a profession it has received more beneficiary endowment than any other profession in the country." In commenting upon this, the N. Y. Tribune says, owing to the numerous endowed scholarships for such as designed to enter the ministry, young men have been bourne through college, etc., at almost no trouble or expense to themselves. "Thus the profession has been crowded with men who never would have entered it, or indeed any other profession, if left to their own resources. The scholarship system offered them an easy road not only to knowledge but to a higher level in life than their natural gifts would have lifted them to if left unaided and they hastened to take the offer. In other words the scholarship was a prize, a bonus for entering the ministry, and if there is any profession which should be sought for its own sake and not through pecuniary inducement it is the ministry." "If the boy consents thus to receive the almost immediate effect is to weaken his manliness."

We have made these quotations for the reason that in a different manner they apply to the medical profession. The cheap medical schools offer a bribe to young men who otherwise would never think of entering the medical profession, in the same manner that the endowment of scholarships operates toward the ministry. As a result vast numbers enter the profession, to become simple tradesmen, or utter incompetents, who would have made brilliant successes as business men, as mechanics, as farmers, etc. So the profession becomes over crowded, starving, and widely demoralized. So we have the spectacle of the medical profession by its establishment of cheap schools actually filling its ranks with persons utterly out of place there, and harmful to themselves, the profession and all others. The cheap schools entice, bribe young men to study medicine in numbers vastly greater than the demand for them. They belittle the dignity of the profession in the minds of these same persons, as that is most valued which costs most, that is least honored which costs least.

There is nothing new about either this principle or practice. Yet it is very constantly forgotten by the profession itself to its own detriment.

The Late Dr. D. O. Farrand.

We are called upon to chronicle the death of another of the prominent physicians of Detroit, Dr. D. O. Farrand. He died very suddenly March 18th. As near as the facts relating to his last illness have come to us, he was taken with an attack of inflammation of the middle ear. This occurred in connection with a severe cold. According to his usual custom he neglected to care for himself, but continued to attend to the numerous calls upon his time and attention, by his large practice. At last the brain became involved and he suddenly sank and died. Doubtless had his general condition been in a more vigorous state he might have endured this last strain upon it. But broken in general vigor by his long and constant overwork with his practice, etc., he readily fell a victim to his last affection.

Dr. Farrand was about forty-six years old. Since 1866 he has been in active general practice in Detroit. For several years he was associated with the late Dr. Zina Pitcher. He was a member of national, state and local societies. He was a surgeon to Harper Hospital, to the Detroit Metropolitan Police force, surgeon in chief to the Michigan Central Railroad, and chief medical examiner of the Michigan Mutual Life Insurance Company. For many years he was a member of the Detroit Board of Education and a leader in the political movements of the Republican party in this city and state up to the time of his death.

He was eminently a popular physician, having the special faculty of rendering himself attractive to all classes in the community. So completely did the practice of his profession absorb his energies that he was unable to contribute much to the medical literature or to do work with physicians in medical societies, or indeed in any other capacity. His life was almost solely with the people. To the most casual observer it has been apparent that for years he has been working far beyond his strength. Like his former partner, it may be fairly said that he died from overwork. In age he was but in his prime and should have lived, in the ordinary course of events, for at least twenty years.

The City Board of Health, the physicians as a body, etc., unitedly gave expression to their personal loss and tendered their sympathies to the afflicted family.

The Index Medicus—Who Will Join its Supporters?

The publication has entered upon its fifth year. It aims to catalogue and classify all the original articles published in all the medical journals of the world, as they are received at the surgeon-general's office at Washington. Under the care of Dr. J. S. Billings and Fletcher, it has won for itself a world-wide reputation among all medical scholars. But there are few medical scholars that are able and willing to subscribe for this work. It is our belief that many more could find it to their interest to subscribe for it were its real character fully understood. Every physician knows that it is a difficult and laborious task to overhaul a medical library of journals, even though it be of modest dimensions. Hence most omit it, to the damage to their reputations and the loss of much valuable knowledge. Well, this index collects all the articles of any doctor's library, and so arranges all the articles that he can in a few moments ascertain just where to find the articles he desires referring to on any special subject. Any physician who takes half a dozen medical journals would find it greatly to his profit and convenience to subscribe for the *Index Medicus.* Then, in addition, medical societies could not do better with a portion of their funds than to subscribe for the same. In this manner they would render substantial aid and encouragement to real progress in the medical profession.

Of the 600 subscribers, the largest number is found in New York State, the next in Massachusetts, the next in Pennsylvania. A considerable number of copies are taken in each medical center of the old world. In Michigan but two copies are taken. This ought not so to be. At least fifty copies should be at once subscribed by medical societies and individual physicians.

Send on your personal order at once to F. Leypoldt, 31 Park Row, New York City. Six dollars per year.

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The Annual Commencements of the Detroit Medical Colleges.

The Detroit Medical College held its fifteenth annual commencement February 25th. The entire senior class, numbering fifteen, were graduated. The addresses, adornment of the stage, the music, were all pleasing to the large audience. Dr. H. O. Walker gave the valedictory address, and Hon. Chas. A. Kent the lecture. After the public exercises the Faculty entertained the graduates and introduced them to the members of the profession in Detroit and surrounding towns. The entire affair passed off in a manner pleasing to the participants.

On the evening of March 5th the Michigan Medical College graduated a class of twenty-eight, plucking one of the candidates for the degree of M. D. The annual address was given by the Rev. E. L. Rexford, D. D. and the valedictory by Dr. J. B. Book.

After the public exercises the Faculty entertained the graduates and the friends of the college, and the profession generally. During this entertainment the graduates presented a parting address to Dr. J. J. Mulheron, on the occasion of his retirement from his connection with the institution. In his usual happy manner the doctor responded. The music, flowers, etc., were especially attractive to the senses of seeing, hearing and smelling, etc.

Thus another year of continued prosperity has closed for these medical institutions. They are fully ready for large summer classes, and active work with the same. Rumors have been current of efforts to consolidate the two schools, but thus far nothing definite in this respect has been accomplished.

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The New Departure of the Association of American Medical Editors.

We have before us the circular issued by the secretary of the association. It is the culmination of his very earnest efforts to put some life and usefulness into the association. The main features of the circular are briefly as follows: The place of the next meeting will be the same as that of the American Medical Association: Cleveland, O. The time will be June 5th and 6th. Arrangements have been made so that the sessions can be held between the afternoon meetings of the sections and the evening entertainments. Dr. N. S. Davis, president of the association, will make an address on Tuesday evening, upon "The Present Status and Tendencies of the Medical Profession and Medical Journalism." On Wednesday evening, Dr. H. O. Marcy will give an address upon "Journalism Devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments." Papers are also expected from Dr. Stone, of St. Paul, and Dr. Octerlony, of Louisville. The announcement is given thus early that such as are interested in these subjects, whether or not they be editors, may make such arrangements as shall permit them to take part in the discussions. It is also to be hoped that the medical editors will be out in full force. Most of them never attend the meetings of the American Medical Association, and this furnishes all an excellent special inducement to attend and make its acquaintance. We are certain that in no other way can so correct an idea be obtained of the medical profession of the entire United States; of its excellencies and its defects, and suggestions as to the ways by which the one may be cultivated and the other corrected.

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A New Idea for the Spread of the Knowledge of Medical Ethics.

The code of medical ethics contains much that relates exclusively to "the duties of patients to their physicians." It has, doubtless, puzzled many to understand how patients were to be made aware of their duties to their physicians. Clearly the code has never been brought to the public notice. All the public know of medical ethics has been derived from physicians and newspapers. As to the desirability of instructing the people respecting their duties in this regard, there can be no doubt. As to the best method for accomplishing it, there is plenty of room for ingenuity. Dr. F. H. Darby, of Morrow, O., has struck upon the idea of using wrapping paper as the means of spreading this knowledge. Thus he has had printed on one side of wrapping paper the duties of patients to physicians, as given by the code. This printing is so arranged that the sheet can be torn or cut into halves, quarters, eighths, or sixteenths, without destroying the reading matter. There are also added items of general interest, and of wit and wisdom, to still farther attract attention. This paper is for the use of physicians and druggists in dispensing their medicines. If properly carried out, we have no doubt but this scheme will be productive of general good. Perhaps it may be the means of stimulating other minds to devise other and better modes for the instruction of people in these and other important matters relating to their relation to the medical profession.

Thus it may be hoped that some of the heresy and skepticism now existing among the people may be removed.

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Memoranda.

Detroit Medical College graduated thirteen students.

Rush Medical College graduated 179 medical students.

Nashville Medical College graduated fifty-nine students.

Atlanta Medical College graduated thirty-nine students.

Michigan Medical College graduated twenty-eight students.

The Buffalo Medical College graduated fifty-seven students.

The Medical College of Indiana graduated a class of fifty-three students.

The Hahnemann Medical College of Chicago graduated 133 students.

The Miami Medical College of Cincinnati, O., graduated forty-one students.

In London, England, every fourth person receives gratuitous medical advice.

The Medical Department of the Arkansas Industrial University graduated four students.

Professor Von Sigmond died February 1st, æt. 74. He is everywhere known as the great Vienna syphilographer.

An epidemic resembling cholera has been prevailing in Waterbury, Conn. Hundreds of people have been attacked by it.

The library of the late Dr. Foster Jenkins, of Yonkers, N. Y., is said to have cost him over $12,000. It was recently sold for about $4,000.

Prof. Carl von Hecker died in the fifty-sixth year of his age. As teacher of obstetrics in Munich, he made a world-wide reputation.

Judge Landen, of New York, recently ruled "that if a prescription of a regular practicing physician is put up as written the druggist is not responsible."

The English midwife who inoculated with syphilis a number of women whom she attended, has been sentenced to twelve months imprisonment with hard labor.

Dr. Benjamin Howard Rand died Feb. 15, 1883, æt. 56 years. He occupied the chair of chemistry in the Jefferson Medical College of Philadelphia from 1864 to 1877.

The *North Carolina Medical Journal* concludes that our New York medical friends think more of their business than of fellowship in the American Medical Association.

During 1881, in France, the number of legitimate births was 444,972 males, and 422,006 females. The number of illegitimate births was 35,589 males and 34,490 females.

The leading homœopathic medical journal says "that the old code of ethics of the American Medical Association was and is practically the guide of homœopathic physicians."

The Louisville *Medical News* says: "One of the saddest things of medical life is the fact that the worst thing said of a physician usually emanates from some other physician."

Dr. Murphy, of Cincinnati, says that but twenty per cent. of all medical graduates remain in the practice of medicine. Most leave the profession through disappointment, discouragement, and the allurements of other callings.

A name at last! It has been reserved for the *Northwestern Lancet* to discover a proper name for such physicians as believe in the code of ethics of the American Medical Association—"hide-bound and moss-covered members."

The Chicago organ of homœopathy says of the late action of the New York State Medical Society: "It amounts to a virtual recognition of homœopathy. This is but the first symptom of an overthrow of the regulars as a distinctive class."

The management of Tewksbury Almshouse is charged by Governor Butler with corrupt traffic in the bodies of the dead of that institution. Thus far he has not satisfactorily accounted for the dead bodies during the past twenty years.

Within two weeks three Australian medical journals were confiscated by the government; one for an article upon the military sanitary service, one for an article upon the civil appointment of physicians, and one for a paper upon a recent decree of the minister of the interior.

The Plymouth Medical Society has passed a formal resolution to the effect that: "This society strongly condemns the practice of meeting in consultation homœopaths or other advertising practitioners under any conditions whatsoever." What narrow-minded old fogies!

Two Detriot physicians, Drs. H. Petershausen and E. Lauderdale, have lately become so insane as to require their treatment in a special hospital. No adequate cause is given for the illness of either gentleman. It is hoped that their recovery may be speedy and complete.

At a meeting of the Rensselaer County (N. Y.) Medical Society, held February 13th, it was voted to stand by the code of the American Medical Association. Thus it deliberately repudiates the action of its state society and allies itself with the American Medical Association.

In the *British Medical Journal*, Feb. 24, 1883, Dr. Jacob reports a collection of twenty-four deaths from chloroform, and four deaths from ether, during the past year in England. In most cases the deaths occurred when the anæsthetic was given for slight operations, as amputation of fingers, etc.

A writer in the New York *Medical Journal* says that the secretary's records show that in forty-one counties of New York, there were either permanent members or delegates who voted for the old code, while in twenty-eight counties there were those who voted for the new. Ten out of the sixty counties in the state were not represented.

Cleveland is testing the value of regulating prostitution. Women in brothels are to be examined weekly. If found diseased, the women are to be sent to a special hospital and cured at the expense of the owner of the brothel. It is much the same system as was tried in St. Louis some years ago. Not being based upon common sense, as many think, it is not more likely to succeed.

How many years must medical students spend at medical institutions before being admitted to an examination for a degree? In Sweeden, ten years; Norway, eight; Denmark, six and seven; Belgium, Holland, Italy and Switzerland, six; Russia, Portugal, Austria and Hungary, five; France, England and Canada, four; United States, two or three; and Spain, two. Large numbers get their diploma in this country in one year spent in college.

Gaillard's *Medical Journal* says that the profession of New York must have such a medical organization as will permit them to associate with the rest of the profession in this country and Europe. "That the merest fraction of the medical corps of this state is to dominate the entire medical body, to disrupt, and disgrace it, and degrade it, no one can believe; and the physicians of the state will deserve ruin and disgrace if they passively submit to be thus outraged and trampled upon."

Dr. O. W. Wight, A. M., M. D., Attorney and Counselor-at-Law, Health Officer at Detroit, in a paper read before the Pôntiac Sanitary Convention, and published in the *Sanitarian*, uses the following expression: "When I propose to raise the deuce by discussing on the theme, 'How to Make a Place Unhealthy,' you will probably be on the alert to detect sanitary heresy." "Deuce" may be a forcible term, but it is scarcely classical.

A writer in the *Medical Herald* quotes Dr. Da Costa as saying: "If one has not too much to do he writes a short paper on phthisis; if one has little to do he writes a long paper on phthisis; if one has nothing to do he writes a book on phthisis." The same writer says: "Gynæcologists, as a rule, part their hair and their names in the middle, and never die until they have invented pessaries and speculums innumerable."

The Integrity Medical Aid Fund is the name of a sort of coöperative medico-chirurgical, obstetrical, gynæcological, pædiatrical supply association. It consists of eleven doctors, who for the sum of thirty cents a month, agree to attend and provide medicines to any person who becomes a member of the society. The *Canadian Practitioner* calls attention to this new evidence of Toronto medical enterprise.

On February 23d died Rev. Dr. Paul A. Chadbourne, President of Massachusetts Agricultural College. His numerous pupils will at once recall him as connected with Bowdoin College, Pittsfield Medical College, Williams College, both as Professor and President, and Madison University, of Wisconsin, as President. Through all this active career as teacher and author he was a most energetic business man, being connected constantly with large business enterprises, always with great financial gain to himself.

In discussing the subject of suicide in France, the editor of the *Medical Gazette* takes occasion to remark that true religion is the needful thing to prevent such suicides. "Society demands religion. It constitutes an essential part of state medicine, without which individuals and communities tend to a condition of reckless irresponsibility, which ends in most cases in a species of mental and social anarchy. In our opinion, therefore, whoever attempts to loosen this anchor is an enemy to his own race."

The Brain, the leading neurological journal of Great Britain, says of the profession of that country: "The treating of mental disease is with one or two exceptions either neglected or pretended. The medical men to whom the custody of the insane in ever increasing agglomeration of numbers is entrusted, are losing the character of physicians in that of administrators, and medical treatment for the cure of mental disease in the very institutions supposed to be devoted to the purpose seems to be passing out of use."

Dr. J. P. Dake, in the *Medical Advance*, the organ of the Homœopathic Department of the Michigan University, says: "The teaching of regular medicine implies the right to teach homœopathy; and the teaching of homœopathy, in deference of the minority of the citizens of the state, implies the right of any other minority to have other medical doctrines taught in a formal manner at the public expense upon the campus of the University. The state should leave the teachings of politics, religion and medicine to the several parties or sects which are organized for their support and propagation."

The *Medical Annals* says: "Secession is not a popular method of objecting to a fair majority vote." Amen. That is just the view that the rest of the United States takes of the action of the State Society of New York. One state pulls off from the rest and sets up its own modes of professional association, in opposition to that of the rest of the states. The same principle would permit every county of New York to set up its individual principles of professional association. If one state can set up for itself why not every county? And if every county, then every town in the county can do likewise. In short, having broken down the general obligation, each may go on in his own way according to his own sweet will.

The French court records show that the increase of education increases the amount of crime, specifically. (1) That 25,000 persons wholly illiterate furnish five criminals. (2) That 25,000 of the class able to read and write furnish six criminals. (3) That 25,000 of the class of superior education furnish more than fifteen criminals. (4) That the degree of perversity in crime is in direct ratio with the amount of instruction received. (5) That in the departments in which instruction is most general crime is greatly more prevalent—in other words, that morality is in an inverse ratio with instruction. (6) That relapse into crime is much greater among the instructed than the non-instructed portion of the community.

The tone of the medical press respecting the new code is, if possible, more unanimous in condemnation than last year. Evidently it is not growing in favor; perhaps the following will give a fair average of the expressed opinion. *N. E. Medical Monthly*, March, 1883: "The new code was conceived in dishonor and for selfish purposes, by a little group of specialists and medical politicians and has never received the endorsement of the large element of the general practitioners. The medical politicians cared very little for the mass of the profession; to them they were an infinitesimal minority of the general public, whose ears they have attracted and whose patronage they may enjoy for a limited period.

Dr. Fitzpatrick (*Brit. Med. Jour.*) argues against the compulsory notification of infectious diseases, because "It is an insolent usurpation to expect medical men to do the work of detectives, and it is an act of baseness on the part of medical men to hold out their hands for the bribe paid them for betraying the confidence placed in them as members of an honorable profession." Dr. Ewing Whittle, of Liverpool, opposes the same compulsion, because "From the evidence of the medical officers of health he showed that the objects aimed at could be and were better accomplished without compulsion." In Liverpool, the matter has entered into politics, a candidate who had been very earnest in forming and executing the compulsory notification acts, was defeated in a re-election, because the householders stood by their views in this matter.

The bill to promote the efficiency of the North Carolina State Board of Health was defeated this year by a vote of 28 to 7. In speaking of this the *North Carolina Medical Journal* says it is no wonder that some of the legislature complained of the power of the board to abate nuisances. At the capitol there is a shocking disregard of cleanliness. There are no necessary conveniences belonging to the capitol, members relying on the hotels, except that there is a large wash tub behind the screen, where one may retire in case of an active state of the kidneys." So this legislature sits down upon sanitary advance.

Dr. Austin Flint has begun a series of papers in the *New York Medical Journal* upon the code of ethics of the American Medical Association. We hope he may republish them in pamphlet form for the wider distribution among the medical profession and the people. He calls to mind the fact that this code was written by Thomas Percival in 1863, for the individual guidance of his son, who was entering the practice of medicine. He says that his thoughts were directed to his son, "with the tenderest impulse of paternal love, and not a single moral rule was framed without a secret view to his designation, and an anxious wish that it might influence his future conduct." Again he says: "The relations in which the physician stands to his patients, to his brethren, and to the public, are complicated and multifarious, involving much knowledge of human nature and extensive moral duties. The study of professional ethics, therefore, cannot fail to invigorate and enlarge your understanding, while the observance of the duties which they enjoin will soften your manners, expand your affections, and form you to that propriety and dignity of conduct which are essential to the character of a gentleman."

The *North Carolina Medical Journal* says that the medical profession is responsible and should be held so for the success of nearly all the proprietary medicines that adorn the shelves of many of our drug stores. Nearly all such alleged remedies are the result of prescriptions written by educated men and for a legitimate purpose, for a stipulated sum, and most of them accompanied by the certificates of weak-minded professional men, as well as simple-minded hypochrondriac patients. Thus many years ago a professor in one of the New England medical colleges wrote a prescription for a druggist complaining of dyspepsia. After his recovery the druggist used the prescription for a proprietary medicine. The result was a fortune, for it was endorsed by many leading physicians of New England. The druggist retired on a fortune, while the professor died poor.

Editor's Book Table.

Ross on the Nervous System.*

The nervous system in all its phases is of late being very extensively studied, especially in the English speaking countries. Extended treatises on the general subject are becoming numerous. For a long period of time Hammond was the leading work, then came a work by A. M. L. Hamilton, whose chief merits had, as was shown in a court of justice, been plagiarized from Hammond. A similar charge has been made in the *Edinburgh Medical Journal* against the work of Ross, which charge has certainly not been substantiated. The present work is a compilation rather than original production and all such are liable to seem plagiarisms to hypercritical individuals. It purports to give the anatomy, physiology and pathology of the nervous system and to do so requires any work to lay under contribution numerous authors. The author seems to have assimilated Meynert's teaching pretty thoroughly; at the same time he has ignored the American workers in the same field. The first volume discusses first the conservation of force, the properties of biotic matter, the structure of cells, etc.

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*A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By James Ross, M. D., in two volumes. New York: Wm. Wood & Co. 1882.

The account of the anatomy of the spinal cord and cerebrum is clearly summarized from Flechsig, Charcot and others. In the second volume. the author adopts Hughlings Jackson's application of Herbert Spencer's hypothesis to the cerebellum regarding it as an organ of doubly-compound co-ordination in space." An opinion much better supported by anatomy, morphology and pathology is that expressed by Spitzka, (*American Journal of Neurology and Psychiatry*, 1882) who claims that "the cerebellum is a field where the impressions of touch and position are associated with time and space. Its main object is the fusion of the sensations or their coördination in some way for the benefit of the cerebral hemispheres. It is the informing depot to the great head-centre, the cerebrum. The cerebellum is but by tract for impressions conveyed by other channels, and only the finest coördinations of movement with regard to space and time are to be connected with the cerebellum. Spitzka also claims that a fine musical ear, the sense of rhythm and time, and the ability to perform any fine feats of equilibrium are not possible without an intact and well developed cerebellum." The distinction between a fundamental and accessory nervous system is clearly outlined. The parts distinguishing man from the lower animals are accessory. Those held in common are fundamental. The first are very liable to disease, the second not so much. The laws of evolution and dissolution are well analyzed in this connection. The chapters devoted to general ætiology and symptomatology discuss trophic, motor, and sensory symptoms as tropho-neuroses, kinesioneuroses, and æsthesio-neuroses. As a whole the book is one of the two good treatises on the nervous system in English. Its descriptions of disease are not as clear as those of Hammond and are at the same time both diffuse and meagre. It is well issued and illustrated and will more than repay purchase and perusal.

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Hyde's Practical Treatise on the Diseases of the Skin.*

Why should there be another work upon the diseases of the skin? Our author says that it is because of the rapid and great advances which are being made by the several individual workers in the several portions of this field. Hence he has taken upon himself the task of compiling the latest observations and experience and combining them with the older ones and so making a compact volume representing modern dermatology for the service of medical students and practitioners. From this standpoint we think he has been successful in more than a common degree. The measures employed are given both in terms ot the apothecaries scale and the metric system.

We were interested to note that the author adopted Heitzmann's views as to the essential nature of the relations of protoplasm. This theory supposes that all the living matter in the skin or related to it is connected mass by mass by means of small cords of living matter. "The living matter which produces a delicate reticulum within each protoplasmic body, its points of intersection being termed nuclei, nucleoli and granules, furnishes the spokes which thus produce continuity through all the living layers of the epithelial elements as well as through the underlying layers of the connective tissue." This theory of the relations of protoplasmic matter is destructive of the cell theory as the ultimate form of living matter. It has not as yet been accepted by other histologists, however attractive it may appear and simple it may seem. The classification adopted is a modification of Hebra's. That of the American Dermatological Association is also added. This element of classification is a great obstacle to the study of skin diseases. He who would understand the writings of the several workers in this field must comprehend and carry in his mind several very different modes of naming the same skin affection. This is a difficulty incident to rapid development of any branch of science.

All will be interested in the chapter discussing the kinds of skin disorders produced by the use of various drugs, as these are likely to puzzle any person unfamiliar with them. A practical point of much value is in the treatment of carbuncles. Instead of laying these open by free crucial incisions he follows Wood of Toledo and injects, by the hypodermic syringe deep in the mass, pure saturated solution of carbolic acid. This he has found to operate very pleasantly. The strength of the acid is important, as a weaker solution will be absorbed and may produce toxic effects. The pain of this injection is severe but short-lived. The tissues are blanched, indurated and destroyed. The slough is in a few days readily separated after division of the slender fibrous attachment and the ulcer rapidly contracts with the sequel of a smaller scar. The several diseases are described very concisely, but at the same time with unusual clearness. The treatment is given in the simplest manner and apparently with great honesty. Affections that are incurable are not pretended to be cured by any internal medicine or external application. As a whole it is a good book, remarkably adapted to the needs of those for whom it was written. It should be at once placed in the library of every general practitioner. Such rather than the specialists are compelled to treat most of the cases of skin disease, else they are not treated. Hence the importance of their possessing in convenient form a work treating of the latest and best methods of comprehending and dealing with these affections.

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*A Practical Treatise on the Diseases of the Skin for the Use of Students and Practitioners. By James Nevins Hyde, A. M., M. D. Philadelphia: Henry C. Lea's Son & Co. 1883. Cloth pp. 572. For sale by John Willyoung, Detroit, Mich.

The publishers have issued it in their usual substantial manner.

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Transactions of the Missouri State Medical Society for 1882.*

To the president's address upon quackery in Missouri we have already called attention in a previous issue of the DETROIT LANCET. The representation of actual facts was sufficiently dreadful to cause a shudder even in the hardened. As then remarked this statement would not be so bad if there were not good reasons for believing that a similar condition of things existed in other states; in short, that Missouri was not a sinner beyond other states.

Among the scientific papers worthy of mention is one upon "Phlegmasia Alba Dolens," by Dr. P. V. Schenk. While the paper is interesting, no additional light is shed upon the subject. Dr. J. M. Trader discusses "Railroad Surgery." From it he draws the conclusion that in this class of injuries "never operate unless there exists an absolute necessity." The reported discussion develops the experience of a large number of surgeons and brings out important practical points. Dr. J. P. Kingsley makes a useful "Report upon the Progress in our Study of Children's Diseases." Dr. A. W. MacAlester reports a "Congenital Multilocular Cystic Degeneration of the Thyroid Gland." "The Treatment of Pott's Disease Existing in the Upper Dorsal and Cervical Regions," is the subject of an able paper by Dr. A. J. Steele.

The remaining papers are "Congenital Cysts of the Thyroid Gland," by Dr. Frank J. Lutz; "The Essential Psychic Signs of General Functional Neursasthenia," by Dr. C. H. Hughes; "A Case of Hydrophobia," by Dr. J. L. Mathews; "Idiopathic Sub-Acute Laryngitis," by Dr. Wm. C. Glasgow; "Notes on Vaccination and a Few Inoculations," by Dr. Robert F. Brooks; "The Use and Abuse of Sulphate of Quinine," by Dr. George M. Dewey; "Placenta Previa," by Dr. E. J. Warth; and "Local Medical Organizations," by Dr. T. J. Norris. As a whole this report makes a very favorable showing for the profession of Missouri. The publishing of the discussions upon each paper greatly adds to the value of the transactions. The paper upon medical organizations makes it very clear that only by such means can we hope to make substantial and uniform progress.

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Esmarch on Early Aid in Injuries and Accidents.*

This little work consists of instructions to the people, so that all may be able to render intelligent and helpful assistance to such as have suffered from accidents or injuries. It was arranged as a help to the work of the society of the Red Cross. This society, as will be remembered, is organized for public aid during national epidemics and wars. It is impossible for surgeons to be readily obtained in cases such as are referred to, hence the importance that the laity should be instructed how to care for patients until such can be had. As might be expected, the distinguished surgeon of Kiel has performed his task with enthusiasm and wisdom.

He begins with a brief account of the several structures of the human body that are the most likely to suffer injury during accidents, etc. Then he takes up in regular order the following subjects: Contusions, bruises, wounds, how surgeons treat wounds, hæmorrhage, poisoned wounds, fractures, dislocations with their treatment, sprains with their treatment, burns with their treatment, frost bite, drowning, artificial respiration, suffocation, loss of consciousness, poisoning and its treatment, and transport of the wounded. It would be well if all surgeons and physicians would collect their patients together and instruct them in the topics here discussed. Such instruction would be of service to not only the injured and their friends, but to the surgeon himself, in causing his knowledge and skill to be better appreciated by the laity. It would in no sense take the place of the doctor. The work is well issued and will have a large sale. It is to be hoped that it may stimulate others to follow Esmarch's example.

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*TRANSACTIONS OF THE MEDICAL ASSOCIATION OF the State of Missouri. 1882. St. Louis, Mo. Paper pp. 220.

*EARLY AID IN ACCIDENTS AND INJURIES. By Friedrich Esmarch. Translated from the German by H. R. H. Princess Christian. Philadelphia: Henry C. Lea's Son & Co. 1883. Pp. 117. For sale by John Willyoung, Detroit. Price, cloth, 75 cents.

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Transactions of the American Ophthalmological Society.*

This report covers 124 pages, and contains twenty-six articles. It will thus appear that these articles are not very long ones. After each article is a short account of the discussion upon the same. Many of the articles are illustrated by diagrams. A large portion of the papers contained simply a report of an unusual case, or cases. In this manner quite a considerable number of rare cases are here collected. These of couse are of interest to the ophthalmologist, and of profit generally.

Among the papers having a general interest was one from Dr. E. C. Loring, of New York, in which he adduced cases showing that it was sometimes justifiable to bring about the premature delivery of a pregnant woman, for the prevention of absolute blindness. That such cases exist, may be at once admitted, but the care in selecting them should be very great.

The general character of the work indicates a continued activity in the life of this society —one creditable to not only itself, but also to the profession.

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Roberts' Compend of Anatomy—Third Edition.†

Intended as this work was for the dissecting room and in preparations for examination, its scope is limited. But in this limited field it has done an excellent work and met with a gratifying success. It is one of the best works of its kind.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Anatomy.

BRAIN-WEIGHT IN ITS SEVERAL RELATIONS. —Pfleger (abstract in *American Journal of Neurology and Psychiatry*, January, 1882), from important and cautious studies made lately, says:

1. That there is no marked difference between the relation of the brain-weight to the cranial capacity in the adult between the twentieth and sixtieth year: a decided decrease of the brain-weight occurs after the sixtieth year, and a still more pronounced decrease after the seventieth. In all these respects, both sexes appear to be equal.

2. The absolute brain-weight increases as the body-length and trunk-length increase.

3. The relative brain-weight decreases with increase of stature: this decrease is more constantly expressed in the isthmus and cerebellum than in the cerebrum.

4. The absolute increase in weight accompanying increase in stature is not an equal one as regards the different brain-segments, it is a constant factor only in the case of the cerebrum.

5. The skull cavity of the female is smaller than that of the male, in proportion to the body as well as the trunk-length.

6. The female brain has an absolutely and relatively lesser weight than the male brain.

7. In comparing the weight of various cerebral segments in the sexes, the greatest difference is found in the cerebrum, the least in the cerebellum; it is also found so in those dying of acute diseases; the cerebrum is relatively greater in the male, the cerebellum and isthmus in the female.

8. The female brain appears to be a little heavier than the male, in proportion to the corresponding skull-cavity dimensions.

9. Even in this respect, it is found, however, that this relative greater weight is due to a preponderence of the isthmus and cerebellum.

10. The sexual difference in brain-weight is greatest in those dying of acute diseases, reaching as high as fourteen per cent.

11. The sexual difference is lessened by chronic disease in the sane and in insanity, being ten per cent. in the former and eight per cent. in the latter.

12. The male brain loses more in weight with insanity than the female brain, and this relation remains unshaken by excluding the cases of paralytic dementia.

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*TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL Society. 1882. New York. Published by the Society. Paper; pp. 124.

†THE COMPEND OF ANATOMY, for use in the Dissecting Room and in Preparing for Examinainations. By John B. Roberts, A. M., M. D Third Edition. Philadelphia: C. C. Roberts & Co. 1882. Pp. 198.

Nervous Diseases.

SPINAL IRRITATION — ITS INTIMATE NATURE.—Dr. J. S. Jewell (*Journal of Nervous Diseases*) concludes an able paper thus: In every case of true spinal irritation the chief seat of disease is in the spinal cord, in its sensitive tract. It includes, first of all, nutritive lesion in which, to use a favorite phrase of mine, there is a more or less marked loss of balance between waste and repair, the former having outrun the latter. In my view of the case there is positive leanness, or substantial interstitial loss of the ultimate nerve elements. It is believed that, as in the case of the wasted muscle, or like leanness or loss of volume and weight in any given part, or even of the whole body, accompanied by a corresponding loss of energy or power, the same condition occurs in the exceedingly active and frequently overworked nerve mechanisms, especially those of the spinal cord. It is true these things have not been made the subjects of ocular demonstration, but the course of reasoning is so direct and cogent, based upon well-known facts ascertained by observation in relation to more accessible parts of the body, as to compel the acknowledgment of the position taken as substantially correct. Any part of the spinal cord which is habitually over-excited or overworked, and the consequent wear of which has gone on faster than the reparative work of nutrition for the same part, sooner or later, may suffer not only a loss in volume and in power, but the process of wear and tear, when it has advanced to an extreme degree, even in a muscle, gives rise to irritation, the expression of which is at first a mere feeling of fatigue, but if the process of wear is carried farther, fatigue graduates into pain.

If repair of the nerve waste out of which these symptoms arise is accomplished by rest and nourishment, not only the pain but the fatigue disappear. But if the degree of waste is great, and if the circumstances of the case are such as to retard or prevent the process of repair from being carried forward, so that the part in question remains, as regards its nutrition, constantly in that state which gives rise to fatigue and pain, then these latter symptoms, like the lesion of nutrition, of which they are the common signs, become permanent, more especially if the seat of lesion is in the æsthesodic or sensitive tract of the central nervous system.

In spinal irritation, therefore, the first thing to be recognized is the lesion of nutrition just described, in which there is more or less permanent and marked preponderance of waste over repair, the process of destruction or waste having been carried to such a degree as to threaten the integrity of the parts, the inarticulate protest against the farther progress of wear being the constant fatigue and pain which marks uncomplicated cases of spinal irritation. With this view, so far as I am aware, do all the phenomena of spinal irritation agree. Rest, the moderate, judicious use of anodynes, tonics, good feeding, include the methods most approved by experience. Nothing is better known than that persons affected with spinal irritation are often in a chronic manner fatigued, in some instances bed-ridden. Nothing is better known about such cases than that exercise, unless of the most moderate character, aggravates the spinal pain and exhaustion.

INEBRIATE CRIMINALS.—Dr. T. D. Crothers (*Alienist and Neurologist*, Jan., '82,) concludes an illustrated discussion of this subject thus:

1. This class of inebriate criminals are numerous, and are generally studied as types of all others. And unfortunately they furnish the basis upon which much of the literature of inebriety is founded.
2. They are composed of several classes more or less distinct, requiring a comprehensive study of condition and surroundings.
3. As patients in inebriate asylums they are extremely difficult to manage; often bringing odium upon the asylum and receiving little benefit from it.
4. In the treatment they should be classified and be put under strict military discipline, in which labor is a part of the treatment, and this continued for months or years.
5. A removal and classification of this class in our asylums will increase the per cent. of recoveries largely. A more thorough study of the different classes of inebriety will reveal many facts and clear away much of the confusion at present existing.

OCULO-NEURAL REFLEX IRRITATION.—Dr. Geo. T. Stevens (*Alienist and Neurologist*, Jan., '82), from years of careful observation, concludes:

1. That among the peripheric influences which generate nervous affections, the irritation arising from a perplexity or exhaustion of nerves in performing the functions of adjustments of the eyes must be regarded as of great importance.
2. That when a family tendency to neurotic affections is found, the inherited tendency is

often transmitted in the form and condition of the eyes.

3. That inveterate cases of nervous diseases not amenable to other forms of treatment, will often yield to the simple process of relieving the eyes from muscular or refractive disabilities.

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Ophthalmology.

Rules Concerning the Use of Eserine and Atropine in Glaucoma.—Dr. Priestly Smith (*Ophthalmic Review*, March 28), gives the following rules for the guidance of those called upon to treat this condition:

1. Eserine is not to be regarded as a specific remedy for increased tension in general; but as a means of combating the particular displacement of the iris, which, in a large class of cases, is the immediate cause of the excess of tension.

2. Atropine is to be regarded as inadmissible only in those cases in which dilatation of the pupil is likely to intensify the effect of the above-named displacement of the iris.

Primary Glaucoma.—3. In primary glaucoma, and particularly in its early stages, atropine and all other dilators of the pupil are to be studiously avoided.

4. Every case of primary glaucoma should be treated in the first instance tentatively with eserine; the eye should be re-examined within 24 hours, and, if the case be acute and severe, within a much shorter time, in order that operation may be at once undertaken if the tension remain unrelieved.

5. When eserine produces a full contraction of the pupil, it usually produces a reduction of tension and an improvement of vision, and, in exceptional cases, it effects a cure.

6. Eserine is usually to be regarded rather as a means of giving temporary relief and of placing the eye in a condition favorable for operation, than as a means of cure. Even when its beneficial action is most complete the glaucoma is likely to recur and to become confirmed unless arrested by a timely iridectomy.

7. It is chiefly in very recent sub-acute, or acute attacks that benefit from eserine is to be hoped for.

8. In simple chronic glaucoma contraction of the pupil by eserine may be associated with some reduction of tension, but it is unlikely that the benefit will be great or lasting. If operation be declined, or be deemed inexpedient, the pupil should be kept permanently contracted by eserine, so far as this can be done without causing irritation, in order, if possible, to retard the progress of the disease.

9. The strength of the preparation employed, and the frequency of its application, should, in all cases, be the minimum which is sufficient to contract the pupil and to keep it contracted. A solution stronger than two grains to the ounce of water is probably never desirable, and in many cases a much weaker solution is to be preferred. The gelatine discs of Savory & Moore are a very convenient and trustworthy form of application.

10. When eserine proves powerless to contract the pupil it will not reduce the tension, or do good in any way, but, on the contrary, is likely to do harm by promoting hyperæmia, and should not be used further.

11. The period most favorable for operation is that during which the pupil still responds to eserine, but, in recent cases especially, iridectomy may still prove effectual after contractility of the pupil is lost.

12. As a preliminary and as a sequel to sclerotomy contraction of the pupil by eserine is almost a *sine qua non.* As a preliminary to iridectomy it is advantageous in so far as it reduces the tension of the eye, but it has the disadvantage of increasing the hæmorrhage from the iris. After iridectomy, while the anterior chamber is still empty or only partially reformed, eserine is apt to promote the formation of posterior synechia, and has been known to induce a fresh glaucomatous attack;* atropine, on the other hand, is certainly sometimes beneficial. Further evidence as to this point is wanted.

13. In those cases in which a condition closely resembling primary glaucoma is lighted up by an intra-ocular hæmorrhage, eserine must be used with great caution. It sometimes relieves, but it has been known to excite fresh hæmorrhage.

Secondary Glaucoma.—14. In secondary glaucoma associated with posterior or anterior synechia, eserine is likely to do harm rather than good; atropine may be useful in subduing inflammation, and is likely, if it influence the tension at all, to influence it beneficially. The same rule holds good for serous iritis, and, probably, for some other ill-defined inflammatory states in which the anterior chamber is deep rather than shallow.

15. Glaucoma following needle operations on the lens might possibly, in the absence of iritis, be relieved, for the moment, by eserine;

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*Pflueger.—Augenklinik der Universität Bern. Bericht über das Jahr 1880, p. 44.

but eserine is contra-indicated by the danger of setting up iritis; the speedy removal of the swollen lens is the rational treatment.

16. Glaucoma due to the presence of the lens in the anterior chamber is likely to be aggravated by eserine; if, when there is no excess of tension, eserine be employed in order to facilitate the removal of the dislocated lens by operation, it should be applied only a short time before the operation is performed, lest it should induce a glaucomatous attack in the interval.

MONOCULAR BLINDNESS FOLLOWING HEAD INJURIES.—Drs. Leber and Deutschman (*Archiv. Oph. Specialist*) present the following points relating to this subject:

In these cases the sight of one eye is lost before any ophthalmoscopic changes are visible; later on atrophy of the optic disc supervenes without any changes in the rest of the fundus. The authors point out that if the loss of sight and subsequent atrophy depend on an injury to the nerve, that injury must be behind the point at which the arteria centralis retinæ enters its substance, or there would be hemorrhages and effusion into the retina; while it must be in front of the commissure, or the blindness would not be confined to one eye.

The observations of Holden are quoted, who showed from an examination of eighty-eight cases of fractured base that in 90 per cent. this involved the optic foramen; and from these it is concluded that the loss of vision in such cases is due to compression or tearing of the optic nerve in its passage through the foramen.

Ten cases of head injury followed by blindness of one eye, more or less complete, are quoted. In one of these there were symptoms pointing to general injury, and vision of both eyes was affected; of the remaining nine, four had marked symptoms of fractured base, while the remainder were comatose for various periods.

The defect in vision was observed in all the cases as soon as consciousness was recovered. In all the cases (six) in which the injury could be localized, the blindness was on the same side as the injury; it was complete in the one eye in six cases; in the other three there was considerable amblyopia, with diminution of the visual field. At first there were no ophthalmoscopic changes, but after an average period of three weeks the first signs of atrophy of the disc appeared; this later on became complete, the vessels not being altered in size.

From the observations of Holden, showing how frequently fractures of the base involve the optic foramen, from the considerations which localize the injury between the point of entry of the arteria centralis retinæ and the optic commissure, and from the impossibility of explaining the symptoms in any other manner, the authors conclude that the monocular blindness is due to compression or tearing of the optic nerve, produced by a fracture passing through the optic foramen. In some of the cases the globe was much protruded; this could hardly have been by blood from the ophthalmic artery, or the retinal circulation would have been interfered with, and it probably indicated that the fracture extended along the roof of the orbit.

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Practice of Medicine.

MEYER ON DIPHTHERITIC PARALYSIS.—Paul Meyer (*Virchow's Archives*, *The Brain*) describes the appearances he has met with in a well-marked case of diphtheritic paralysis. He has found that the peripherical nervous system exhibits well-marked signs of parenchymatous neuritis, the characters of which he describes in detail and figures.

The alteration was best seen in the branches to the diaphragm and to the abdominal muscles (including the cremaster). Next to these came the nerves to the ilio-psoas, deltoid, triceps; then those of the glutæi and adductors of the thigh. After these came the nerves to the quadriceps, and the muscles of the forearm and leg. In general the alteration is very diffuse, and there is no special predilection for any particular group, such as flexors or extensors.

Degeneration was also found in the cutaneous nerve, but to a less extent than in the motor branches.

The cranial nerves also exhibited well-marked signs of degeneration, specially well seen in the oculo-motor, abducens, and glosso-pharyngeal.

In the large nerve-trunks the degeneration appeared to be inversely proportional to the calibre of the nerve. Degeneration was also visible in the anterior and posterior spinal roots, more particularly in the cervical and lumbar region than in the dorsal. The anterior roots were relatively more affected than the posterior.

Degeneration was also to some extent evident in the multipolar cells of the cervical and lumbar region of the cord. The cells of the posterior cornua were also affected to some extent.

The author concludes that the diphtheritic infection attacks the nervous system in general, both spinal and peripheral, and that there is no reason to regard the one as secondary to the other.

Sanitary Science.

PERFECT VENTILATION.—Alex W. Murray (*Sanitary News*, Vol. VI, No. 3,) calls attention to some of the principal things to be observed as to the maintenance of a proper standard in the sanitary condition of a dwelling:

1st. The perfect ventilation of a building must comprise the ventilation and construction of the water fixtures and their attending waste pipes; the prevention of the entrance of soil air by a concrete floor underneath the basement floor, impervious to air, water or vermin, and this space independently ventilated.

2d. The foul air should be taken out at or nearest to the source of contamination in such a manner as will offer the least resistance to the flow of air, to be governed by circumstances, such as the shape, mode of heating and lighting of the rooms.

3d. The warming and ventilating currents in a room should never be perceptible, and their temperature between 55° and 70° Fahr., and in such volume as will supply each person from 5 to 10 cubic feet of pure air per minute, varying, as per temperature and quantity, according to age, health and occupation of the inmates.

4th. For each cubic foot of coal gas, pint of oil, and pound of coal burned, there should be allowed respectively about 10, 130, and 150 cubic feet of air.

5th. The fresh air ducts leading to the heating apparatuses should be impervious to leakage of any kind, whether of air, water or vermin, and as it is now understood that direct radiation is the best means of heating the body, the radiators should be so constructed that when the temperature of the out door air is lower than 55° Fahr., that it could be automatically deflected so as to warm it to the required temperature, and should be brought into the building as near to the radiators and from as sunny an exposure as practicable.

6th. The foul air flues should be so regulated that an excess of moisture and heat would cause an increase in the exhausting power of the flues, their capacity to be determined according to the means of heating, lighting and uses to which the rooms are put.

7th. The waste-pipe system of a house should be so ventilated that a flow of air from the rooms into the pipes can be maintained inside of the water seal of trap, and also through the entire inner surface of the sewer side of water seal of trap. This can be only properly done by having motive power, either by heat or mechanical action inside of the upright vent pipes, that of the sewer side of water seal preferably within the largest pipe. Where the pipes simply extend up through the roof, the difference in the specific gravity of a column of air within the house and that without sometimes being as much as three ounces, increases the facility by which the gases are transmitted by absorption.

8th. Common frame houses using stoves can be very economically ventilated, in a small degree, by bringing the air in a pipe beneath the floor from the outside, and then carrying the pipe up into the room, encircling the stove pipe and opening out into room near ceiling. The foul air can be taken out by a pipe whose lower end opens about six inches from the floor and upper end connected to a smoke flue.

9th. By the use of double glazed sash, and admitting the sunshine into the house wherever you can will reduce the expenses of heating and add to the general health.

10th. To receive the full benefits of ventilation, the inmates of a house should practice perfect cleanliness, not only of person, but of their surroundings.

11th. The chimney of a building should be built high enough to be beyond the influence of any surrounding object, and the inner surface of flues should be of circular form.

If the foregoing brief sayings should be the means of causing you in your daily avocation to add the bloom of health to a single individual, they have not been uttered in vain, and when you have been taken by the hand and credited with, and thanked for, having added ten years to a human life, you will no doubt think that "ventilation" is a study worthy of your time and money. I am in hopes that this association, at no distant day, will have its library and laboratory to assist its members and those of the fraternity at large, in learning all that is to be learned about the trade (I deem it a profession) of plumbing, gasfitting, sewerage and ventilation. And, in furtherance of this end, I should suggest that the papers read upon any subject of interest to all of the trade be printed in pamphlet form and gratuitously distributed to the members of the trade.

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Original Communications.

The Power of Alcohol Over the Nature of Man as Displayed by the Modifications of Mind, Morals, and the Physical Constitution, Incident to its Use.

PART V.—RELATIONS OF CHRONIC ALCOHOLISM WITH PARALYTIC DEMENTIA—MORBID STRUCTURAL CHANGES IN THE BRAIN—HYPERPLASIA OF CONNECTIVE TISSUE—CONTRACTIONS OF SAME—CELL DEGENERATIONS—NERVE FIBRES ALSO IMPLICATED—FIBRES OF ASSOCIATIONS—PHYSICAL BASIS OF THE MORAL FACULTIES—THE EGO—RESPONSIBILITY—RIGHTS—DUTIES—CO-ORDINATION INJURED BY ALCOHOL—INJURY OF THE CO-ORDINATING STRUCTURES ATTENDED BY A DECLINE IN THE MORAL NATURE —KLEPTOMANIA.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

I NOW change the scene and the topics of the investigations and inquiries respecting the influence of alcohol upon the human character. It will, therefore, be well to view the ground we are about to occupy.

We have nothing to do with the acute symptoms or effects of alcohol. Neither does periodic intemperance, the impulsive outcome of a morbid neurotic temperament, and mostly irresistible, enter into the present consideration. Our business is with the effects of the steady and habitual indulgence in alcoholic liquors; not necessarily associated with actual intoxication, not indeed, of a degree that would be esteemed by many to be excessive. The design is to inquire into the ultimate and final effects of alcohol upon the brain and mind of the deliberate and systematic inebriate.

It is now the generally received opinion among those best qualified to judge, that about seventy-five per cent. of the cases of paralytic dementia have a history of alcoholism.* But it must be understood that all steady drinkers are not affected with the extreme consequences of chronic alcoholism. There must undoubtedly be in operation a certain constitutional predisposition, which favors the occurrence of the extreme trophic changes induced by alcohol in certain cases, and which makes the path straight for the mental and moral disasters which ensue. It will be seen, however, in another department of our inquiry, that constitutional changes may arise, and may come under the laws of heredity, from the toxic power of alcohol, which are not associated with any sensible trophic changes. This will more clearly appear when the subject of alcoholic anæsthesia is under consideration.

According to statistics, out of 160 persons affected with the progressive paralysis of the insane, 116 had the alcoholic association. It is not essential to the present purpose that the details of the other recognized causes of paralytic dementia, such as sexual excesses, prolonged mental emotion, syphilis and sunstroke, should be dwelt upon. It is simply desirable that the part played by alcohol, in this relationship, should clearly stand forth in its proper individuality.

This introduces the inquiry, or rather the series of inquiries, respecting the morbid appearances and changes which are most commonly observed in the brains of those who die of paralytic dementia. It is the purpose to speak of those only which are well known and universally admitted; conceding, of course, that it may happen sometimes, that material changes may be truly ascopic, and not be recognizable by the senses. Yet it is not unlikely that such changes actually exist, when their presence is not observed, from the fact that the attention is directed towards evidences of intimate pathological activity; while in reality they consist of trophic changes in isolated tissue, without evidences of any morbid molecular process.

The nature of the most obvious initial change in the brains of the paralytic insane, is, all authorities agree, a hyperplasia of the connective tissue. "If we look at a microscopic section of a brain affected with this malady," says Dr. Whittaker, "we see a hyperplasia of the interstitial tissue." Certain minute changes observed in the cerebral substance of one who had suffered from this form of disease, were owing, says Dr. Maudsley, "to an increase of connective tissue; * * * the degeneration of the nerve substance from the hypertrophy of this tissue, has been observed by Rokitansky."

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*See Dr. J. T. Whittaker in Lancet and Clinic, Feb. 25th. 1882. Dr. Crothers says eighty-nine per cent.

In many respects it is not a matter of great importance whether this increase in the neuroglia of the brain is inaugurated by one exciting cause or another; whether it is in fact of one kind or of various kinds; because when the event has been reached, the effects are the same. It may be syphilitic, and the increase of substance may consist of syphiloma; or it may be prolonged mental trouble, and the resultant increase may be possibly colloid, or amyloid; or it may be that alcohol is the exciting cause, and the increase of tissue may present still different properties.

In regard to the particular kind of connective structure which is formed through the influence of alcohol, it will be well to make a few remarks. And first, alcohol is recognized as the element more prone than any other to excite the proliferation of fibrous tissue, not only in the brain, but throughout the entire system. Few structures, Dr. Bartholow remarks (*Practice of Medicine*, p. 844) escape the trophic influence of alcohol when it is habitually introduced within the body. The kidneys, the stomach and the liver, all exhibit an hypertrophy of the connective tissue, "and the neuroglia of the brain also undergoes hyperplasia." The peculiarity of the fibroid nature of the adventitious structure produced under the influence of alcohol, is strikingly exhibited in its subsequent changes. In the kidneys, for instance, the alcoholic influence induces interstitial hypertrophy; but subsequently the hypertrophied tissue contracts, just as the scars following a burn contract. This contraction of the hypertrophied tissue produces interstitial nephritis. In the liver a similar contraction of fibrous tissue, confining and squeezing the true gland structure among its meshes, produces hepatic sclerosis, or hob-nail liver. In the brain a similar contraction occurs, and occasions various disasters in the condition of the capillary circulation, and the nerve fibres and nerve cells.

In every case of hyperplasia of the containing or sustaining tissues, the first step toward inducing the inordinate growth, is some impairment of the normal state of the vitality in the part affected. This is true, whether the original source of the trouble is emotional, or specific, or toxic. It is easy to conceive of the probability of the vital actions becoming depressed under the operation of poisonous agencies; but it may to some have the appearance of mere guessing, when emotional influences are classed with those of a toxic nature, in the production of morbid changes. But the fact that vital impairment is a necessary precedent to the inauguration of interstitial hyperplasia, affords the key to a rational explanation of the hypothesis. It all lies in the fact that the irksome persistence of mental operations, and particularly mental emotions, induces a condition of debility and exhaustion of the brain power; and depresses the vital forces operating in brain tissue. This weakened vitality invites congestion. "Being brought to a lower state of life, functional activity is impaired; the blood vessels dilate and the corpuscles of the blood exhibit a tendency to stick together." (Maudsley, Path. of Mind, p. 499.) Subsequent inflammatory and trophic manifestations follow in due order. The depressing influence of alcohol upon living tissue is admitted by all; while its especially injurious impression upon connective tissue, when introduced into the circulation habitually, and visiting all parts of the organism, is demonstrated by the illustrations already given.

The hypertrophy of the neuroglia of the brain, which, says Maudsley, "it is thought has its starting point, not only in the nuclei of the walls of the blood vessels, but also from the proper nuclei of the brain substance," operates disastrously upon the true nerve element by mechanical displacement and intrusion. "As a consequence of the exuberant increase of the hypertrophied tissue, the nerve elements, as well as the delicate capillaries, are injured or destroyed; * * * atrophy of nerve element takes place, either in consequence of interference with its nutrition, or from the growth of connective tissue."

Of course so serious an intermeddling with the normal condition, and even the existence of the true nerve cells, implies a corresponding decay and disturbance of mental function. It is easy to conceive of the impossibility of mental activity in normal relationship with natural environments, when the structures upon which activity relies for projection, when the nerve cells, are obstructed in function by the mechanical encroachment of an aggressive foreign substance.

But the injury done to the nerve cells does not depend exclusively upon pressure occasioned by the hypertrophy of neighboring structure. The final contraction of the intrusive connective tissue, by a process of strangulation of the smaller blood vessels, induces a failure in the proper nutrition of the nerve element. Consequent upon this defect in nutrition, there often ensue various forms of cell degeneration. Nerve cells, for example, may undergo fatty degeneration. Unfitted thus for physiological action, they may be absorbed, and in the place that was occupied by them, there may be observed certain changes in the interstitial tissue of the part. "The fine elastic fibres contract, get closer and closer together, and remain as the constituent tissue of a cicatrix which sometimes causes considerable deformity; whole sections of nerve substance have been replaced by a relatively small quantity of an unyielding, compact, dry tissue."

When the deterioration in structure of the nerve cells approches this point, it is impossible that the mental functions should be exhibited in a regular manner.

As the process of hyperplasia goes on, "the circulation is shut off, and the brain substance becomes anæmic. Then contraction of this new connective tissue occurs, and strangulation of nerve cells and vessels ensues." Pigmentary degeneration of the ganglionic cells of the brain is observed in the various forms of paralytic dementia, say all the authorities; as also are earthy, or calcarious degeneration of the same class of cells. Various other changes in the form and structure of the cells of the brain tissue, have been described in connection with paresis.

Passing from this class of physical degeneration of nerve element, in the production of which alcohol is so prominent a factor, it will be proper to consider some of the changes which may take place in the true nerve fibres at the same time and from the same cause. It is true, these fibres can avail nothing in bringing mind into proper relationship with external matter, if the cells which function perceptions are destroyed. But even if these cells should retain any considerable integrity of structure and physiological power, yet, if the nerve fibres are destroyed, or seriously injured, there could be no reciprocal action between the mind and the world exterior to it; because there would be interruption in the continuity of the only means of communication between them. Even should the batteries be in order, they would be useless if the "wires are broken."

On this point, Maudsley (*Path. of Mind*, pp. 511–512): "As a consequence of the excessive increase of the connective tissue, the nerve elements are destroyed or injured. In the gray substance, the ganglionic cells appear inflated, their continuations are undoubtedly torn and the nerve tubes penetrating the gray substance are destroyed. * * * * In connection with the hypertrophied tissues are amyloid corpuscles, colloid corpuscles, calcareous and fatty granules,—all being products of a retrograde metamorphosis—if the colloid and amyloid bodies be not, as some suppose, fragments of broken-up nerve."

So it is found that, in the various changes and degenerations incident to the proliferation of the connective tissue in the brain, in the progressive paralysis of the insane, mind is rendered incapable of preserving normal relationship with extrinsic mind or matter, by reason of isolation—exclusion.

But there is still to be considered, before speaking of the actual phenomena of chronic alcoholism specifically, another important nerve complication which is often brought about by the toxic properties of alcohol. Besides the cells and centers ministering to sensation, motion, ideation, and their congeners, individually and independently, and besides the various avenues to and from these centers, there exists in the brain a large and important class of nerve fibres known as fibres of association. These first distinctively pointed out by Meynert, have been carefully studied, and their connections and offices determined.

The great importance and wide application of this branch of our inquiry demand a few words of explanation. The powers and relations of the strictly intellectual faculties are always prominent subjects of investigation. They have been foremost in the views heretofore expressed relating to the influence of alcohol upon human character. But there is a class of faculties belonging to healthy mental display, and which are absolutely essential to sound mental exhibition, which has not as yet come under our consideration. It has been the fashion, practically, to look upon morality as a peculiar grade or quality of intellectuality, and to hold the reasoning powers responsible for every phenomenon, good or bad, of the moral nature. There seems to prevail an idea that immorality is somehow the outcome of an intellectual activity associated with some sly tricks of the rational faculties; while morality is the offspring of intellectual operations undisturbed by the irregular and undefined freaks of reasoning gymnastics, however originated.

In opposition to these and similar ideas, I wish to emphasize the fact that there is a distinct portion of the brain as certainly employed in the formulation and exhibition of the moral capacities and powers as of the rational nature and powers; and further, that the disturbances of the brain consequent upon toxic or other influences, are as liable to affect that portion associated with the moral nature, as they are to impress another portion of the brain, connected with ideation and reason. There is a perfectly well defined line of separation between the moral sentiments and intellectual exhibitions; between the centers of emotional and moral exhibition, and those ministering to rational exposition; between, in short, the physical basis of morality, and the physical basis of rationality.

Of course it is understood that in health, there is a natural and agreeable interchange of function between all the nerve centers, moral, ideational and motor, and I may add ganglionic; making an harmonious unity. Yet it is evident that there may arise confusion in the co-ordinate functions of these several and diverse centers, consequent upon causes which will throw them out of their natural relationship with each other; giving rise, thus, to various disorders, as one, or another class, of the nerve centers are mainly affected.

I will now direct attention to that large and very important part of the human brain, which, while it does not think, does not decide, yet impels the mind to activity, directs its course, and often from the very beginning, determines its conclusions. I speak of the physical basis of the moral faculties. A comprehension of the existence and functions of this portion of the brain, is not only necessary for understanding the appearances attending chronic alcoholism, but it is essential also, to the explanation of many of the remoter consequences growing out of the use of alcohol. Indeed, the activity of those portions of the brain which minister to morality, is no less universal and no less important, in the life of man, than that which is associated with the pure reasoning faculties.

To secure a brief, but comprehensive idea of some of the main points connected with the subject in hand, I will quote a short passage from a paper by Dr. Spitzka, in the *Journal of Nervous and Mental Diseases* (January, 1881). The doctor says: "Meynert, many years ago, called attention to the presumptive physiological role of certain arched fibres which are known to unite adjoining, as well as distant cortical areas with each other. * * * * I should, if asked to point to the chief factor on which the higher powers of the human brain depend, lay less stress on the cortical development, as such, than on the immense preponderance of the white substance, due to the massive associating tracts. Although the projecting tracts are also larger in man than in any other animal, yet so great is the preponderance of the associating mechanism that the elimination of the former would not reduce the white substance of the hemisphere by one half its bulk. Both projecting and associating fibre masses increase in a nearly geometrical progression as we pass from the lower animals to man; but the ratio of progression of the associating fibre masses exceeds that of the projecting tracts. There are certain convolutions which are almost exclusively connected with *fibræ arcuatæ*; that is, with associating tracts, and which enjoy but little direct connection with the bodily periphera. It is reasonable to suppose that such cortical areas, so connected, play an important role as a substratum of the abstractions. Such cortical areas and their subsidiary associating tracts, bound into the still higher unity of the entire hemisphere, constitute the substratum of the metaphysicians *ego*. A disturbance of the intricate relations which are involved in the material basis of the *ego*, must be accompanied by a disturbance of the *ego*, or may even render an *ego* an impossibility."

Dr. Maudsley says on this subject (*Path. of Mind*, pp. 373–483): "The habitual co-ordination of thoughts and feelings is the basis of consciousness and personal identity." Again he says: "When the co-ordination of function in the brain is overthrown, the consciousness of personal identity and responsibility is also destroyed."

It is evident that the consensual activity or consent of all the healthy nervous attributes and capacities, is the one essential requisite to the display of sound mental function; and, as such attributes and capacities are so held in unison through the integrity of the nerves of association, any disturbance or obstruction in the free exercise of the natural functions of these nerves must give rise to lamentable defects in mental operation. When the interchange of nerve influence between the various centers concerned in thought is free and unembarrassed, and emotion is also equally uncontrolled, there is present in every sound mind an impregnable sense of personal importance and individuality. The feelings of rights, duties, cares and responsibilities, spring to the front, and they dominate all the serious avocations of life. The theologian insists with good reason, that this ever present sense of responsibility, which, while it exacts duties, also confers powers and dignity, implies to a demonstration the freedom of the will. Here, indeed is room for thought—nerves of association, personal identity, the *ego;* responsibility, duties, cares; freedom of the will.

But in chronic alcoholism the free interchange and equilibrium of nervous association is overcome by the intrusion of hypertrophied interstitial tissue upon the nerves of Meynert. And especially are these nerves of association injured, both in office and structure, by the final contraction of the connective tissue, which, by strangulation, annihilates their function.

What does it matter now whether or not the projection fibres in either direction are in a perfectly physiological condition? What does it matter whether the nerve cells are or are not in a healthy state? The toning, the equalizing, the interpreting power is lost, and the mind is simply a "jangling of sweet bells out of tune." It must be a fact, however, that any considerable disturbance of the association fibres in the brain cannot take place without the implication of both the projection fibres and nerve cells. For great as the distinctions in function amongst the nerve centers undoubtedly are, similar distinctions do not extend to the intimate nature of nerve structure. Any serious disease, therefore, implicating a considerable portion of the nerve tissue in any department of the brain, can hardly fail to reach the analogous tissues in other localities, and impress its influence upon their functions also.

The great importance of this subject of the moral nature of man, embracing as it does, the topics of moral insanity, and moral, as well as legal responsibility, will justify us in repeating and adopting the declarations of Dr. Spitzka, found in the *Journal of Neurology and Psychiatry*, August, 1882. (The Somatic Etiology of Insanity, p. 73): "The fundamental factors of thought and action are our perceptions and motor innervations; they are, in other words, the units of thought and action. They can be properly referred to nerve-cell groups as their anatomical seat, and as far as the intellect is in question, to the cell groups represented in the more or less diffused and dovetailing areas of specialized function in the cortex cerebri. But the largest hemisphere known, with the most crowded and most highly developed nerve-cells, the most extensive connections with the periphera, and the most perfect projection of that periphera in its intricately convoluted mass, would, functionately speaking, contain nothing but a series of pigeon-holed impressions, stored away without method, and with little useful purpose to the organism, were it not for an apparatus whose study is much neglected by anatomists as well as physiologists. I refer to those arched fibres, uniting the different cortical centers with each other, and to which Meynert, Broadbent, Wundt and Stark alone, have directed attention, as the presumable media of the highest function of the mind." With the exception of the term "impressions," derived from Hume, and which Dr. McCosh properly calls "unfortunate," and which is certainly an indefinite characterization of a very important mental element, the above excerpt is exceedingly instructive and suggestive.

Very important considerations of medico-legal interest are interwoven with the influence of alcohol upon the brain tissue. It is easy to conceive of the unstable will, the impaired will and the imbecile will when the consciousness of personality is weakened, and the feeling of responsibility is lost, in consequence of injury to the fibres of association, through the hypertrophy of the interstitial tissue of the brain.

It is conceded by all whose authority is of any weight, that one of the earliest symptoms pointing to the progressive paralysis of the insane is a marked change in the disposition. There is a change in the moral nature. This is observed very early, because the sensibilities are on the surface; they are always on the alert, and any great disturbance of the nerve centers would more readily declare itself through the moral nature than through intellectual defects. It is evident that the finer and more sensitive qualities of the mind would become earlier and more seriously affected by morbid processes than the grosser and more common qualities. A breath will tarnish the polish of refined gold, but it would not sensibly affect the more substantial and practical plow-share. A hint, a look, a shrug will ruin the glorious bloom upon woman's character, but they would glide harmless from the reputation of a man of the world. So a little thing, a slight morbid impression, will work wreck and destruction upon the integrity of the sensibilities, the emotions—upon the moral nature—while it has ofttimes small effect upon the intellectual processes. Besides, the intellectual operations are guided in the end, in a great degree, by automatonism and habit, a thraldom insufferable to the superior and refined characteristics of the elements of morality.

If it is true that the function of the association fibres contributes so greatly to the establishment of the feeling denominated the ego, with its implied senses of responsibility and of duty, it follows that the failure or inhibition of this special nervous function would be succeeded by a destruction of the ego, and a destruction of the senses of responsibility and duty as well.

An early sign of impending paralytic dementia is loss of memory, that is, loss of the associating faculty or power. This must be consequent upon injury to the material basis upon which the function of association and equilibrization amongst the nerve centers depends. It points unmistakably to disturbances affecting that important portion of the brain set apart to minister to the unifying of mind and morals, and to the individualization of mind and matter.

It is proper to observe that there are really two stages of chronic alcoholism; although the latter stage may be ushered in without the manifest appearance of the first.

As to the first stage: There may arise, after a protracted period of steady drinking, not necessarily carried at any time to strong intoxication, a state of the nervous system characteristic of the chronic effects of alcohol. There is debasement of the moral faculties with muscular unsteadiness and trembling; not evanescent, but of a lasting nature. But the more striking symptoms relate to delusions and hallucinations. The delusions are such as indicate distress in the nerve centers; as might, indeed, be inferred when it is remembered that the process of proliferation of interstitial tissue is even now taking place in the brain. The delusions indicative of this stage of chronic alcoholism, are those of persecution. Dangers are apprehended; robbery or assassination is threatened; while the hallucinations are of a kind to confirm the delusive ideas.

Such a patient came to my office several years ago for consultation. He was moody, abstracted, miserable, earnest and frowning. He assumed an attitude of listening, and suddenly said he wished he had his pistol with him; he would see if people would insult him with impunity. He was at the same time looking through the window at the pedestrians upon the street. He evidently thought that the insults and threats that he conceived to be made towards him were uttered by people passing the house. Supposing this person had his pistol at hand, which he declared with emphasis to be a "cavalry weapon with a nine inch barrel," it is not improbable that he would have gone upon the street and shot down the first man he encountered. It has been but a few months since a man was shot dead upon a passenger train on the Ohio and Mississippi railroad. There had been no quarrel or interchange of language. The parties concerned were total strangers to each other; but the assailant had been drinking deeply for a long time, and was under the influence of the hallucinations which precede and originate the delusions of persecution, and which are always suggestive of the material injury the brain undergoes in chronic alcoholism. My patient was, among other grievances, possessed with the idea that he was under the spell of magnetism, and took great pains to warn me to be on my guard against the malignant powers of certain indefinite personalities lest I might become similarly enslaved with himself. It is singular how completely such patients surrender to the ideal powers they have imposed upon themselves. There seems to be no thought of resistance or escape. One patient had prepared himself for death upon the gibbet, declaring his innocence of the crime imputed to him; he yet seemed incapable of conceiving of any possibility or way of escape. These victims of alcohol are very miserable. In my patient there were great changes in disposition as his disease progressed. He became extremely religious, although an infidel when in health; he was a devout catholic while sick, but when well he is prone to deride the pope. The progressive disintegration of brain tissue in many cases of chronic alcoholism is of necessity attended with the most distressing mental conditions. The unremitting activity of the brain changes often prevents any rallying point in mental function; and the resignation of the mind to the most dreadful situations presented through the delusions of persecution, is simply the resignation of hopelessness and utter despair. Oftentimes the mind is so imbued with the horror of its condition that, while it hopes nothing for itself, it entreats others to escape from the place it occupies before they, too, become forever overwhelmed and bound by a pervading malevolent power.

I have lingered somewhat upon this case in order to notice the outcome. The patient is a professional gentleman of good ability.

He has quit drinking, and five years have passed since the occurrence of the sickness partly described. He is at this time under my observation, and is perceived by me—not by people in general—to be morbidly impulsive, given to much self-consciousness and vanity, with corresponding contempt for the personal and intellectual pretensions of others. The fact is, that certain changes in the structural mechanism of the brain have most likely taken place, which are of a permanent character. It does not follow that these changes shall of necessity assume the *rôle* of progression, and go on unrestrained to the final brain disintegration characteristic of paralytic dementia. Indeed, when we come to consider chronic alcoholism as a factor in the elaboration of the criminal nature, we shall have reason to recognize as true, the doctrine that the progress of brain degeneration may be arrested, although a return to pristine health and structure is impossible. It appears that upon the withdrawal of the toxic agency of alcohol, the morbid process of cytogenesis ceased in my patient. And now the fact seems to be, that while the nerve elements, injured and abused, may partially adapt themselves to the new circumstances and relations in which they are placed, it is impossible for them to overcome entirely the effects of the mechanical intrusion upon the conditions of mental function.

This man is not sound in mind, when considered with respect to his mental powers previously to his alcoholic disease. He would undoubtedly be held responsible for criminal acts by people at large, who are incapable of rightly interpreting the significancy of slight breaks in intelligence and morals. Yet the conscientious expert, learned and skilled in mental pathology, would explain the motives underlying the same criminal acts with great caution and doubt. Juries are called upon to decide such questions, however, although they are incapable often of even imagining the mental difficulties and contingencies involved in them. They are cringingly denominated by paid lawyers, "men of plain common sense"; as though that kind of wisdom and feeble knowledge were the best to engage in unravelling the tangled skeins of thought, aided, forsooth, by the "instructions" of the court, founded upon the psychological status of fifty, or, perchance, one hundred years ago.

The near advent of the second stage of chronic alcoholism may be suspected oftentimes from surprising exhibitions of moral obliquity. The extreme symptoms of nerve degenerations may not be observed until the patient actually appears in scenes of gross indecency or dishonesty. There is no doubt that kleptomania is sometimes a symptom of approaching dementia. The term kleptomania is more proper than thieving, because the motives causing the appropriation of the property of others are as wide apart as the antipodes in the two cases, as will speedily appear.

In this stage of chronic alcoholism there is already great disaster in the cells, the centers, and the associative fibres of the brain, caused by the violent intrusion of connective tissue upon the domain of normal nerve structure.

If the nerves of Meynert must operate in harmony, in order to compromise and equalize the several properties of cell function, it must be a fact that upon the destruction or even hindrance of the physiological activity of these nerves, there must ensue great disturbances in the general result of mental activity.

There is a period in human life when it will be conceded that the fibres of association have very little activity. Association can take place only where there may be properties in actual existence that can be brought into relationship. In infancy and very early childhood, sensations and perceptions mainly occupy the mind; and it is only after a period of time, that they become so thoroughly registered, that they can become the subjects of association. The question of early education naturally arises here;—that is, the practice of the arbitrary inculcation of thoughts, conclusions and ideas. It is evident that the infant mind is at first engaged with the wonders of creation, as revealed by the senses. Of course these become by degrees fixed in the mind, and at length are the subjects of co-ordination, and comparison. But this process is not completed until, by many and various experiences between mind and matter, the individuality of the mind is established on the one hand, and the equally distinct personality and individuality of matter, on the other hand is fixed. Yet the fact is, that this distinctive establishment, inplies that the co-ordinating faculties are brought into activity; and that they at length supplant the integers,—but not less the wonders—of individual sensations and perceptions.

Hence it will be seen, that, before the function of the fibres of association with its power of classification is established, there is nothing by which the infant can be held to possess a true sense of the *ego*—with responsibility. But whatever pleases its fancy through its senses—a bright toy, or a ringing bell—it claims with vehemence and cries. This is not a matter of reason, it is an affair of the feelings alone. The basis of child, or at least infant life, is desire, impulse springing from the sensibilities, not will, associated with reason. In the second childhood of senility a similar mental state may be observed. But at the present time, we are more interested in the toxic power of alcohol, which also, by destroying the functions of the associating fibres of the brain, reduces the will and the condition of responsibility to the level of the infant mind.

Yet there is a difference. The infant mind, by reason of motor as well as intellectual inefficiency, cannot exhibit, aggressively, any of the moral defects depending upon the imperfect establishment of brain function; while the subject of chronic alcoholism is fully able to display his deficiencies in the moral attributes, as they arise from the destruction of the association cells and fibres, with the consequent loss of the sense of responsibility, to say nothing of the feeling of personality and individualism. The consequences of the destruction of the physiological function of the fibres of Meynert may readily be perceived. Dr. Kiernan, of Chicago, reports a case where a person in plain view, entered a store and appropriated several shirts to his own use. He was arrested and punished. The sequel was that the man died about eighteen months afterwards, in an insane hospital, of paralytic dementia.

There was a person within my knowledge who had been a hard drinker as well as a hard laborer. No stigma of dishonesty blurred his name in a community where he had lived for many years. This man, whose face and head had been very red for a long time from habits of intemperance, suddenly began a career of stealing. It was not like ordinary theft. He would deliberately take, and carry away with him, things notoriously the property of others. A fine gun, belonging to a relative who lived near by, was one of the articles taken by him. He was arrested, and upon my testimony that he was insane, he was sent to an asylum. He made no attempt at concealment, nor did he offer any excuse or explanation. He merely claimed that the articles belonged to him, that they were his own property. Other symptoms of insanity soon followed, and the man died in the asylum in Dayton, Ohio, demented.

This was true kleptomania, and it has the same unreasoning impulsive basis that actuates the child, when it claims the gilded toy or noisy rattle. It all rests upon what J. Russel Reynolds calls "impulse starting from sensation." In the infant, the fibres of association are not yet established in function,—there is no true sense of personality, no feeling of responsibility whatever. In the victim of chronic alcoholism, the associating fibres of Meynert are functionally destroyed by structural changes in the brain. Hence the sense of the *ego*, in its perfection, is lost; the feeling of responsibility goes with it; and the mind in its wreck and ruin, seizes upon whatever is pleasing to the fancy, without the rational power of weighing the consequences. This is precisely the condition of early childhood, as it is, also, of idiocy, where the fibres of association are deficient.

It is evident that the functions of the brain, in parts, as well as in its completeness, may be greatly obtunded, impaired, or even suspended by agencies which, while of considerable continuance are yet, temporary only. Of such, pregnancy, alcohol or other poisonous substances, chronic diseases of various kinds, especially those affecting the stomach and liver, may be mentioned. It is also evident that suspended brain function thus induced, is liable at times to be attended by the same characteristics, moral and intellectual, that distinguish the suspension of brain function when it is due to structural lesions in the neural tissue itself.

In the light of these facts the possibility of moral insanity, sometimes curable, at others incurable, must be admitted. It is in truth a symptom of a clearly defined lesion of the brain, either structural or functional—as much so as any form of insanity can be. It is doubtful if the morbid anatomy of moral insanity is not as clearly demonstrable as the morbid anatomy of purely intellectual insanity. The suggestion is not unreasonable, therefore, that moral insanity is not the outcome of a mere quirking and juggling with the intellectual powers—that it is not simple wickedness and deceit, but that it is a reality, often with a visible and tangible basis.

After the agonizing delusions, illusions, and hallucinations, always present during the earlier course of chronic alcoholism, have passed by; after the process of wrecking the inter-communication of nerve centers is completed, and the degeneration of nerve cells, and the breaking up of nerve tubes are consummated, there ensues a state of mental peace and happiness as wonderful as any of the phenomena that have gone before it. All troubles are passed. Dangers threaten no more. Grandeur, power, illimitable wealth are at hand, and the imagination revels in those fancied possessions which all hope to realize some day, but which, alas, never come —to the sane mind. It is true, as pointed out by Achilles Foville (*Alienist and Neurologist*, July, 1882), that these patients are at times troubled with the heavy responsibilities of their imaginary states. The monarch is in distress for his subjects, or the safety of his kingdom, and the capitalist is tormented with the cares and burdens of wealth. But these exceptions are most likely confined to the progressing and undeveloped cases, while those cases in which the brain wreckage is most complete, are troubled little, if at all.

It is perhaps not a part of our duty to attempt an explanation of this strange state of mind. If a suggestion is admissible, it is the following, which seems best. The time has now come in the course of paralytic dementia when the perceptive faculty is exceedingly torpid, if not nearly extinct. The memory, especially of recent events, is destroyed. "Snatches of old songs" alone rise on the lips and mind. The mind knows nothing of the present—its cares and duties. The fibres of association no longer respond in function to the stray and fugitive scintillations of degenerate, and dissociate nerve cells. Personality has perished out from consciousness, and with it have gone the cares and previsions of responsible life. It only remains for the insane mind and imagination to indulge in those expansive delusions of grandeur and power which distinguish and demonstrate the complete wreck and chaos of the brain. If the mind thinks or imagines at all, it must be in the form of expansive delusions; because the lesions of the brain elements are such as to debar it from the consideration of things fraught with responsibilities and duties.*

He who is intemperate from the love of dleness and degrading associations has the universal contempt and indignation of society. He, who from constitutional defect, is a periodic, and impulsive, and furious drunkard, receives at least a modicum of pity from his fellows. But there has been an idea entertained by grave and sensible men, that a moderate and steady indulgence in alcoholic liquors is useful in aiding the laborer at his toil, and the business man in the perplexities of his affairs. Let those who so think reconsider their opinion, and note the fact, that we have been considering the consequences, mainly, of what Dr. Maudsley calls "that dangerous form of habitual indulgence in small quantities of wine and spirits throughout the day, by which some business men endeavor to spur their overtasked energies."

Treatment of Laceration of the Cervix Uteri.*

BY DR. GEO. H. GREEN.

A GENERAL view of the causes and symptoms of this accident will be appropriate before speaking of its treatment. The predisposing causes from the condition of the uterus are: first, a thinning and weakening of the cervix from too oft-repeated labors; second, the effects of cervical inflammation and hyperplasia rendering the parts less supple and distensible; third, degeneration of the follicles of Nabothii; fourth, softening due to chronic cervical catarrh; fifth, presence of cicatricial tissue; sixth, edema of the cervix; seventh, excessive amplitude of the pelvic strait.

The exciting causes with regard to the uterus are: 1. Untimely expulsion of the fœtus with reference to cervical expansion. 2. A small fœtus with rapid expulsion. 3. Abortion with rapid labor, nature not having prepared the parts for the expulsion of the fœtus. 4. Adherent membranes. 5. Sudden rupture of membranes with rapid expulsion of the child. 6. Ergot and similar hurrying agents. 7. Irregular action of the uterus from mental emotion, hysteria, or willfully violent exertions of the woman. 8. Too early rupture of membranes. 9. Rigid os. 10. Too long distension of the cervix. 11. Malposition of the head or pressure of the os between the head and pubes. 12. Very large shoulders. 13. Pushing the os over the head, and it is more apt to occur in very rapid or very tedious labors than in labors of medium length.

From external causes, the os may be torn during version, or in attempts at forcible dila-

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*There is no doubt that temporary causes may not unfrequently so paralyze the various nerve elements which minister to ideation, that a transitory state, affording symptoms of ambitious delirium, may be induced. Such functional embarrassment may, of course, pass by, leaving various residual symptoms. I desire to be understood as speaking of the hopeless organic lesions due, at times, to chronic alcoholism. In this connection, see a paper from Baillarger, translated by Nelson, in *Alienist and Neurologist*, July and October, 1881.

*Paper read before the Calhoun County Medical Society.

tation, and last but not the least cause, is the use of the obstetric forceps. Goodell says that two out of three forceps cases are for the physician and not for the patient, and that nearly all of the extensive lacerations which he has treated were caused by the forceps. This comes from the mal-use and abuse of a good instrument. Undoubtedly much harm has been done in this way by the obstetric forceps which need not have been done had the physician studied as much how not to use the forceps as he does how to use them, and then take the time which is necessary for the other means instead of putting on the forceps early and hurrying through the labor, and then hurrying back to his office, frequently at the expense of a lacerated cervix or perineum, when a few doses of morphine and tartar emetic, or chloroform or ether, to ease pain and soften and dilate the cervix in the first stage, or a full dose of brandy and quinine in the second stage, together with a little time and patience would have completed the labor normally, and subsequently saved the woman much suffering and invalidism, and perhaps a serious operation to cure her. Before applying the forceps the doctor should ask himself the question, is it necessary for the future welfare of this woman that this operation should be performed? and he should not allow matters of mere temporary convenience to guide him in that which may be a very serious matter for the woman.

Thomas says that a laceration of the cervix is more apt to occur in abortion than in normal labor at full time. A majority of the lacerations are bilateral. When the tear is unilateral it does not open much, because the other side acts as a splint and usually heals with but little if any extropion, and usually with no severe results. The more severe tears are generally bilateral, but may be unilateral or stellate. When the rent is bilateral the circular fibres of the cervix contract and the torn portion rolls back upon itself like split celery, and exposes the raw surfaces and mucous lining to friction against the vaginal walls, and also to the acid secretion of the vagina which irritates those parts whose normal secretion is alkaline. At the same time the circular fibres at the internal os act as a constricting band around the cervix, forcing congestion of the parts below. A large majority of the lacerations of the cervix heal spontaneously, the torn portions either becoming united, or covered with catricial tissue, and are not the direct cause of subsequent symptoms. Even some of the larger tears heal spontaneously or by the caustic and astringent treatment, and do not cause further trouble. In all cases cleanliness aids the healing process.

After every labor the physician should know whether there is any laceration of the cervix or perineum, and this knowledge is best obtained during the third stage of labor.

Before removing the placenta let the finger follow up the cord to the perineum and examine it by the touch, and if there is an amount of laceration sufficient to need attention, it can be readily detected by the finger. Then let the finger follow the cord up to the os and carefully examine it, and if there is a tear of any considerable extent it can usually be detected, though if the tear is slight it is difficult to detect it in the soft and swollen tissues. By knowing at the time what the condition is you will be prepared for intelligent and correct treatment, and this knowledge can usually be obtained at this time without the patient knowing what you are doing. Many primiparas tear more or less. Emmet says that thirty-two per cent. of patients with uterine disease applying to him have more or less laceration of the cervix, and that one-half of the ailments of women who have borne children are due to this tear. But Tilt and other authors differ with him in this estimate. A woman with a lacerated cervix may enjoy good health until lactation ceases and then ovarian activity cause chronic congestion of the uterus which may persist because of an ununited laceration of the cervix. These rents may occur at any labor, or a part at one labor and more at subsequent labors, but they are most apt to occur at first labors or at an abortion.

Even an extensive laceration does not prevent future pregnancies, but when there is a large amount of cicatricial tissue, the subsequent labors will be more tedious and may be preceded by aggravating pains for several weeks. Unhealed lacerations play a very important part in the etiology of uterine disease, but we must not ascribe all uterine symptoms to a lacerated cervix, for many slight tears cause no symptoms, and even some severe ones cicatrize and do not affect the health.

A condition of the womb similar to that which occurs after laceration, viz., congestion, extropion, ulceration, granulation, etc., occurs in virgins and in women who have never conceived, and the same treatment that will cure these cases, will cure the same condition when accompanied by slight or moderate laceration of the cervix, and properly leave tracheloraphy to the more severe and extensive tears, or for those of the most decided symptoms. When a bone is broken, it is repaired by bony tissue. When a tendon is cut, it is repaired by tendon tissue, and when the cervix uteri is torn, it is repaired by tissue similar to that of the cervix, and the cicatricial plug, which some writers lay so much stress upon, is matter similar to the cervical tissue and which was thrown out to fill up the gap. It is not all true scar texture, for it operates the same as normal cervical tissue in subsequent labors, and is not detrimental in character, unless in case of trachelorаphy, when it must be removed in order to close up the wound without strain. Tilt says that it is difficult to over estimate what American surgery has done for gynæcology, and that, while Emmet has discovered the etiology of many cases of uterine disease, he ascribes this cause to more cases than it properly belongs to.

The condition of hypertrophy or hyperplasia from chronic inflammation may exist where there has never been any pregnancy, as well as after laceration of the cervix, and generally the same treatment that would cure it in the first place, would in the other. The main effect of an unhealed laceration is to keep alive peritoneal or cellular tissue inflammations and to continue subinvolution of the uterus with their consequences.

A laceration of the cervix is not known at the time of its occurrence, and may not be for months or years afterward until an examination is made to learn the cause of the ill-health that has resulted. But sometimes it may be known by continuous hemorrhage, while the uterus is firmly contracted and which does not yield to the usual remedies for post partum hemorrhage. This hemorrhage sometimes continues until involution is established. There is no other symptom whereby a laceration may be known without an examination, and immediately after delivery the tissues are so soft and relaxed that a skilled finger might not detect a small or even moderate sized tear.

The symptoms of this affection are common to some other uterine diseases, and are, backache, headache, abdominal tenderness, bearing down sensations, nervous prostration, disordered digestion, constipation, erratic nervous symptoms and hysteria. One writer mentions loss of sexual appetite as a symptom, and says that it was restored in twenty-seven out of thirty-four cases by trachelorаphy. There may be leucorrhœa of a more or less acrid character, or the parts may be dry, red and inflamed. The lacerated part is usually tender, especially at the angle where is the largest amount of new tissue. This angle may be filled so full as to make a diagnosis difficult; but in that case the cervix will be larger at the extremity and smaller above, and thicker anteroposteriorly. This condition prevents proper involution and keeps the womb heavier than normal, and thus causes prolapse, or one of the versions, with the usual train of symptoms. Cases of laceration of the cervix have occurred in unmarried females during abortion, and the fact of pregnancy denied. The heavy uterus pushing down into the vagina increases the constriction around the upper part of the cervix and helps to keep up the inversion and extropion.

The treatment of this form of laceration is a matter of serious importance to the woman, because upon its proper treatment depends her hope of future comfort and good health, and without proper treatment, bad health and continued misery is her lot. Previous to the publication of Dr. Emmet's paper, in 1869, the treatment applied to all cases was by caustics, and astringents, local bleeding, hot water injections, etc., but since that time trachelоraphy has been performed many times and with varying results, but with enough good results to establish it upon a firm basis as a valuable and often necessary operation in those extensive tears which are not relieved by other treatment, and in those lesser tears where there are severe symptoms requiring prompt relief. Conservative surgery should take the front rank, and these lacerations which can be cured by other means, should not be sewed up.

In 1862, Dr. T. A. Emmet, of New York, recognized the important part which unhealed lacerations of the cervix uteri play in keeping up chronic uterine disease, and at once instituted a surgical procedure for its relief, which was freshening the lacerated surfaces and holding them in apposition with sutures. He read a paper upon this subject before the New York County Medical Society in 1869, giving a full description of the operation and instructions for its performance, but it attracted little general attention, and in 1874 he read a second paper before the same society, giving fuller and more explicit directions for the operation, and since then the operation has been performed many times by many different operators, and now it is said that tracheloraphy is more frequently performed that any other important operation in gynecology. Tilt cautiously accepts the operation as a necessary one in some cases, but says that Emmet claims too much for it, and does not sufficiently caution his followers against its dangers. While thus cautious he says that it is difficult to exagerate what American surgery has done for gynecology. Undoubtedly Emmet's operation has been performed many times when it were better had it not been done. A few deaths have resulted from peritonitis or cellulitis which was caused by the operation, and many cases have been relieved of the symptoms for which the operation was performed, while many have been operated upon who would have been relieved as well by other treatment.

While the results of the operation are unfortunate for some of the patients they teach us when to operate and when not to operate. During the last few years tracheloraphy has been very popular with most gynecologists and has been frequently performed, some operating upon any laceration, however slight and whether there were serious symptoms caused by it or not, while others have taught not to operate unless the symptoms were such as to demand relief and could not be relieved by other treatment. Some have taught the necessity of sewing up all lacerated crevices, because of a supposed danger that at some future time cancer might occur in the unhealed tear or in the cicatrix if it has healed. While undoubtedly cancer may locate itself in the site of such a tear, yet it does not locate itself there because of the tear any more than measles would result from taking cold. When cancer occurs it is apt to select the site of a former injury as a more convenient spot to begin, but how many injuries are there to the human race that are not followed by cancer, and many cancers occur in place that have never been injured. Cancer has a natural history of its own and that natural history has no necessary connection with scar texture. It is then wrong and unjustifiable to sew up a torn cervix for fear that it may become the site of a cancer unless there are other symptoms and effects caused by the laceration which demanded relief and which will be better relieved by operation than by other means.

When a new operation is proposed by one of the shining lights in medicine and great claims made for it, it at once becomes fashionable, many others adopt it, and it is soon in the flood tide of its glory. After a time the sober second thought comes. The results of the operation are compared with the results of other treatment, and if real good is done, the operation is retained and takes its proper rank with the others. But if the results are not what were expected and the claims for it are not realized, the operation soon sinks into a merited oblivion. Thus it was with Sim's operation of slitting the cervix uteri for dysmenorrhœa. For a time it was highly lauded and many a suffering women endured its performance, but when hundreds of cervices had been slit, and a few had died from the effects, a few had been benefited while the large majority had been left as bad as ever, the operation was practically abandoned. So with the spray, which has produced one of the greatest crazes that surgery has ever known; some surgeons have been so enthusiastic over it as to say that no surgeon was ever justifiable in performing any important operation without the carbolized spray. Listerism received a staggering blow at the last international medical congress, when Mr. Keith said that he totally abandoned the spray in ovariotomy because some of his patients had undoubtedly been killed by carbolic acid poisoning, and others came near dying from it, while Mr. Lister himself, instead of defending the spray said that the selection of carbolic acid was very unfortunate and that he was not sure, but that within two years he should totally abandon it. Prof. T. G. Thomas said to his class at the College of Physicians and Surgeons of New York last December, that he had not used the spray in three months, and that its use was almost totally abandoned by English ovariotomists. Thus another medical delusion is being buried in history. How quickly sanitarians would sound the alarm if they found the air of the sick room impregnated with another as poisonous vapor as that of carbolic acid, unless lulled to sleep with the vain hope of disinfection. How absurd it is to fill the air of the sick room with poisonous vapor of carbolic acid and then for days together keep the poison in contact with an absorbing surface, and then call this process disinfecttion, and when the patient's system is saturated with the poison inhaled and absorbed, and he dies from its effects how delusive it is to say that he died of septicemia, and then use the same poison with the next patient.

Tracheloraphy will not share the same fate as Sims' operation or the spray, because it is a much more useful procedure, and when the sober second thought has occurred to all, it will take its place as a valuable and indispensible operation in a limited number of cases of laceration of the cervix. Prof. Goodell says that the ebb tide has now set in, and that he knows now when to operate better than formerly, and that where he has operated when there was no ectropion, or merely to remove cicatrical tissue, he has been bitterly disappointed in the results. A tear of the cervix has been the scapegoat of many a headache and spineache, and of much nervous exhaustion, and of spinal and uterine irritation which had other causes and which required other treatment.

Emmet has sewed up several cervices that Sims cut open for dysmenorrhea, but generally there was trouble in their healing too quickly. Possibly both operations were performed when other treatment would have done better.

When a case of uterine disease is examined and a small or moderate laceration of the cervix is detected, with no other symptoms than could be explained by the existent condition of subinvolution, endometritis, perimetritis, pelvic cellulitis or prolapsus, then these conditions should be met by the usual means, and the torn part treated by caustics and astringents until it heals. The caustic used may be the actual or electric cautery, nitrate of silver, carbolic acid or the potassa fusa cum calcei. While this laceration is being treated by caustics the condition of the uterus must not be neglected. Local bleeding by means of incisions into the os or cervix ¼ inch deep and one inch or more in length help materially in reducing uterine congestion. After the application of the caustic a pad soaked in glycerine, or glycerine and arnica, should be placed against the os, and this should be renewed once in 24 hours, and at the time of renewal an injection of half a gallon of hot water should be given in such manner as to fill and cleanse the vagina thoroughly and act as a hot poultice to the cervix. The injection should occupy ten to twenty minutes and the water should be as hot as could well be borne. The glycerine should be continued from seven to ten days, or until it does not produce a rather free watery discharge, and then the os and cervix uteri should be painted once a week with tincture iodine and the injections continued. If at the end of six or eight weeks the laceration is not healed, the caustic may be reapplied and the subsequent treatment repeated. In connection with the local treatment a strong building up treatment should be employed. Tilt says that good hygiene with well-planned tonic treatment will cure three-fourths of the women who suffer from congestion or subacute inflammation of the sexual organs. This well-planned tonic treatment can hardly be over estimated in uterine disease, for by it a lowered vitality may be made to take a healthy action. A weak and run down condition of the system predisposes to chronic congestions and chronic inflammations, while a strong and vigorous woman will have her lacerated cervix heal quickly and without any annoying consequences. In all these chronic uterine diseases a tonic course of treatment is necessary, but all depends upon its being well regulated. Thus one patient may require from a teaspoonful to a tablespoonful dose of a ferrated elixir of cinchona, while another, who needs it just as much, cannot take more than five or ten drops without irritating the stomach and causing headache and a feverish condition. This is also true of the special uterine tonics, as buchu, myrrh, cohosh, ergot, etc. The patient must be studied as well as the disease and the remedies. No set mode of treatment can be depended upon, and in the selection of the general and special tonics to be used, the physician must be guided by the requirements and idiosyncrasies of each patient, not forgetting that these chronic diseases require smaller doses and less frequently repeated than acute disease. Another point is of great importance, and that is to learn the peculiar diathesis of the patient, and combine appropriate treatment for it. Thus I have seen chronic metritis which had not improved for months promptly cured by treatment for rheumatism when the rheumatic diathesis became known.

We may find a predisposition to scrofula, or erysipelas, or neuralgia existing in the system and anchoring fast any chronic uterine disease that may exist. When one of these diatheses exists, either latent or active, or there is a syphilitic history, the peculiar condition must be attended to before the uterine disease will stay cured. The hygienic condition must also be attended to. The woman must have sufficient good nourishing food, because starvation or poor food does not build up good health. Comfortable clothing is necessary, for if the surface is chilled, the blood is driven upon the internal organs to increase the congestion which already exists. Rest is essential; rest to the nervous system, which is sadly impaired in tone from the continued reflex strain which uterine disease causes; rest to the muscular system, which is usually pretty well exhausted, because tired muscles tire the whole system and prevent the desired building up, and because it is impossible for a woman to use her lower limbs much without irritating a tender uterus; rest to the sexual system, because sexual activity exhausts the stock of nerve force more effectually than any other kind of exercise. All heavy lifting and hard work must be forbidden.

This plan of treatment, judiciously followed out, will cure a large majority of uterine diseases, even if accompanied by slight or moderate laceration of the cervix, but there is a portion of the torn cervices where the tear is so great, or where the symptoms are so severe that this treatment is not sufficient, and in these cases tracheloraphy can be performed with a reasonable prospect of a cure which could not be otherwise obtained. It must be remembered that tracheloraphy is not a sure cure for the ills that woman is heir to, for in some well-selected cases, where the operation has been performed by skillful hands it has totally failed to do any good. Neither is it entirely devoid of danger, for two of Emmet's and one of Hunter's patients have died because of the operation.

When the case is selected. for operation, first know whether inflammation is present in any part of the pelvis, for if there is, then acute inflammation may follow the operation and become a serious affair. Pelvic peritonitis or cellulitis should be relieved by the usual means and uterine and cervical hyperæmia should be relieved by hot water, tinct. iodine, glycerine, etc., and enlarged mucous cysts should be freely laid open, and debility relieved by tonics, etc., before operating. The effect upon the system, more than the extent of tear, should be the guide to the operation. If there is no inflammation or granulation and no serious reflex symptoms, do not operate. The indications for operating are a raw, ulcerated or granulated surface, much eversion of the os, extensive laceration, or serious reflex symptoms. The operation should be performed about a week after menstruation, so that the menstrual engorgement will not interfere with healing. Before beginning the operation the bowels and bladder should be emptied, and a hot water vaginal injection be given to diminish the amount of blood in the cervix. It is desirable to avoid the use of an anæsthetic if the woman is willing to endure the amount of pain, as the vomiting which so often follows the use of an anæsthetic may be a serious strain upon the sutures. Some prominent gynæcologists give no anæsthetic for this operation.

With or without the anæsthetic the woman is placed in the Sims' position upon the operating table and a Sims' speculum introduced and held by an assistant. A large folded cloth is placed between her legs to absorb any blood that might be running down, the uterus is drawn down with a tenaculum or vulsellum forceps, and a uterine sound introduced to learn the exact position of the canal. Then a needle armed with a silver wire or a strong silk thread is passed through the upper part of the cervix and both ends brought down; then it is hooked down in the middle so as to form a loop through each lip of the cervix and thus give a perfect control of both lips. This wire or string should be long enough so that when it is in position it will reach far enough outside to be convenient to handle. The string is not so much in the way of the operator as the forceps. Next a tourniquet is applied to the upper part of the cervix to prevent hemorrhage. This may be a wire écraseur, or a metal catheter, cut off to about four inches in length, with a loop of silk cord passed through it and fastened to the ring. Or, better than either, is Emmet's watch-spring tourniquet. This is necessary when the cervix is large and soft, as then the hemorrhage is liable to be severe, or when the tear extends so high up that the circular artery is liable to be cut, but when the cervical tissue is firm, the previous hot water injection is usually sufficient. In drawing down the uterus for operation, the extent of drawing down should be governed entirely by its movability. The uterus being steadied by the string or wire, the lacerated surface is freshened by Emmet's curved scissors, Sheene's hawk bill scissors, or the knife, removing as little tissue as possible, except at the angle, when the extra amount of cervical tissue which has been thrown out must all be removed. This mass is wedge shaped and must all be removed, else it will act as a wedge, keeping the proper cervical tissue apart. There will be less hemorrhage in using the scissors than with the knife.

Care should be taken to not remove the mucous membrane lining the cervical canal, also to make due allowance for the hypertrophied condition of the tissues, for when they return to their normal condition the canal will be much smaller than now; also the external os should be left larger than the canal above.

Now as to how to hold the parts in apposition. Dr. O. E. Herrick, of Grand Rapids, Mich., prefers for this purpose the use of rubber bands, such as are used by stationers for small packages, and claims for them that by their use the parts are kept in a more perfect apposition at all points, and consequently the union is surer and quicker than when sutures are used, and that they are far easier applied, as without skilled help it is sometimes difficult to introduce the needle. The introduction of the needle is the most painful part of the operation, and if they are not to be used, no anæsthetic is necessary. Removal of the bands is much more easily done than removing sutures. The operation can be performed with less skilled help, and consequently can be performed at the patient's home, and it does not require her to keep her bed more than half as long. These are important claims, and if future experience proves that these claims are well founded, then the operation will be stripped of half its difficulties and dangers. Enough of the bands should be applied to hold the whole length of the cervix together. Might not a moderate laceration be cured by thoroughly cauterizing the parts and then applying the bands, as well as to diminish the size of the vagina by caustics? If the os is made too small, it can be dilated, and if too large, we may operate again.

Prof. A. J. C. Sheene prefers the braided silk suture, prepared in wax, which contains five per cent. each of carbolic and salicylic acid, and drawn through a hole in a card board to make it even. This silk is used with a triangular pointed needle, ¾ inch long, and the knot pressed down with a counter pressure tenaculum. Most operators prefer the silver wire suture, threading the needle first with silk and looping the wire into the silk, introducing the first stitch from within outward and the others from side to side, and the two last ones at right angles with the rest, the needle entering and emerging at about one-sixth of an inch from the edge of the wound and putting in the sutures about three lines apart. The stitches should always be counted when put in and a record made and counted again when taken out, to be sure that all are removed. One of Skeene's silk sutures remained in the cervix 14 months without doing any damage, and during that time the woman conceived and went to full time and was delivered without its causing any trouble. Dr. Martin sewed up a lacerated cervix when the woman was three weeks advanced in pregnancy, and she went to full time and was delivered all right. If there is much hemorrhage during the operation it may be arrested by an injection of hot water, or hot alum water, or by a suture introduced deeply under the bleeding vessel and traction made upon it. Do not use iron or tannin, as they would prevent union by first intention, and if you do not get union by first intention, you may not get it at all. Some prefer to fasten the wire with compressed shot, while others twist the wire; in either case it should be spread after it is fastened, so as to not draw too tightly over the wound. When the operation is completed the vagina should be washed out with hot water, for the purpose of cleanliness and to promote healing. Then introduce a plug of cotton saturated with carbolized or camphorated oil or glycerine. This should be removed and a fresh one put in every day for five or six days, and at the time of changing the vagina should be washed out with half a gallon of hot water for the purpose of cleanliness and to prevent inflammation and promote healing. The woman should keep the bed about two weeks, during which time the catheter should be used when necessary, or the urine should be passed in a bed pan and the vagina washed out after each urination, to prevent the urine from irritating the wound. The bowels should be kept open, and, if necessary, by cooling laxatives. The sutures should be removed in seven or eight days, and for this purpose the patient should be placed in the same position as for the operation, the Sims' speculum introduced and the wires cut close to the shot or twist, and then jerked out with a strong forceps, taking out the lower suture first and counting those removed and comparing with the record. When the wire is twisted, it must be held by a forceps close to the cervix and twist against the forceps instead of twisting into the cervix. The patient should keep her bed about a week after the sutures are removed. When the laceration is stellate it is not well to sew up all the tears at once unless the rubber bands are used, for the sutures would be more apt to tear out. It is best to not promise too much, for the best of operators sometimes fail to realize the relief that was hoped for and effected. If all new tissue is removed and there is union by first intention, subsequent labors ought to be normal and without new lacerations. One writer mentions eight cases of labor subsequent to tracheloraphy without laceration. The greater care taken in performing the operation the better is the prospect of success, and this necessary care cannot be taken if the operator is in a hurry.

It is questionable whether to operate immediately after the accident or not, as the tissues are enlarged and bathed in blood, which would make the operation more difficult. If the laceration was detected at once and the operation could be performed, good surgery would dictate its immediate performance as much as in laceration of the perineum, for by it hemorrhage would be arrested, involution promoted, the dangers of septicæmia diminished or prevented, and subsequent invalidism and the secondary operation prevented. The operation performed at this time requires deeper stitches in the swollen tissue and more careful subsequent watching with antiseptic injections instead of the cotton pads. If the operation is not performed soon after the tear then it is not well to operate under two months, and in the meantime congestion would be relieved and cleanliness promoted by hot water injections, and involution promoted with ergot and tonics. If there is displacement after the healing, remedy it with a proper pessary, and give other co-existent conditions their proper treatment, not depending altogether upon the operation and not forgetting to build up the patient with good tonics.

Etiology of Insanity.

BY DR. JAS. G. KIERNAN, CHICAGO, ILL.

LECTURE I.

THE subject of etiology is fraught with many difficulties. This arises from the inter-action of numerous causes, and also from the fact that in psychiatry there are more errors committed on the *post hoc ergo propter hoc* principle than in any other province of medicine. Asylum reports contain etiological tables which are without exception totally worthless. They are not the result of medical investigation but are derived from the statements of friends who often regard preliminary symptoms of insanity as causes. A man hitherto temperate suddenly begins to drink to excess. His case is regarded by his friends as due to alcohol, and this is given in the asylum report as the cause. One strikingly absurd instance of this kind has already been cited. Etiology is by no means a simple matter to determine and only when in a series of cases the same effects follow upon the same agency is it safe to set down that agency as acting in a causative manner.

Causes may be classified in two ways: first, by their relation to the psychosis as predisposing or exciting; second, by their nature as moral or physical. A cause which in one case may be an exciting cause in another may be only a predisposing. Heredity may be the direct cause of insanity in some cases, in others it exerts a predisposing influence only. The same is the case with injuries to the skull, rheumatism, insolation and mental strain.

Prominent among the predisposing causes may be cited heredity, education, age, race, sex, social position, occupation, near kin intermarriage, injuries to the skull, insolation, occupation of parents, etc.

Foremost among the predisposing influences and prominent among the direct causes is heredity. This involves not only the question of insanity in the parent but also the various neuroses and constitutional conditions. The amount of heredity varies according to the manner in which statistics are collected. It certainly is not assuming too much to say that in one-third the cases of insanity hereditary predisposition is found. Hagenbach[1] has found this to be the proportion in the pauper asylum of Chicago.

The question from which parent predisposition is most likely to be inherited has been carefully studied by Brigham,[2] Savage,[3] Baillarger,[4] Thurnam[5] and Stewart,[6] who have found that insanity is more frequently transmitted from the mother than from the father, and when the mother is insane the female children are more likely to become insane. These observations have been corroborated and extended by Richarz,[7] whose conclusions from a very extended study are as follows: First. The chances of the transmission of insanity are greater if the mother is affected, than if the father is insane. Second. The chances of transmission are greater for that child which is of the same sex, and which resembles the insane person.

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[1] Chicago Medical Journal and Examiner, August, 1882.
[2] Observations on Insanity.
[3] Guy's Hospital Reports, 1877.
[4] Annales Medico Psychologiques, May, 1844.
[5] Statistics of Insanity.
[6] Journal of Mental Science, April, 1864.
[7] Allgemeine Zeitschrift für Psychiatrie, Band xxx.

Richarz was also able after a careful study of numerous cases to establish the following order of liability to insane inheritance:

Mother insane:

First. The daughter resembling the mother(?)

Second. The son resembling the mother.

Third. The daughter resembling the father.

Fourth. The son resembling the father.

Father insane:

First. The son resembling the father.

Second. The daughter resembling the father.

Third. The daughter resembling the mother(?)

Fourth. The son resembling the mother(?)

The explanation of this, according to Spitzka,[1] is that maternal influences being concerned in the maturation of the ovum, a process lasting many years, and the development of the impregnated ovum being also under the ægide of the female nervous system, it is easily seen why a healthy male influence, limited to a brief period of the germ-history is less potent to neutralize the evil influence of a vitiated female parentage, than a healthy maternal influence is to neutralize the influence of a morbid or aberrant male ancestry.

Numerous researches have been made as to the manner in which heredity is manifested. Berkham,[2] who has recently studied the influence of marrages with idiots on the offspring, has reported the following observations: "A semi-idiotic man has been married for some years to a healthy woman; there is no family. A healthy man married to an idiotic wife, has had three children by her; these cases support Vogt's[3] views, that while female idiots may bear children, the males are very frequently incapable of begetting them. Marriages are very rare between male half-cretins and healthy women but are not uncommon between healthy men and semi-cretinous females who may happen to own a little property." Dr. Berkham has never seen the progeny of these marriages arrive at maturity; if not still-born, the children usually die during childhood.

Mercier[4] lays down the following propositions as governing the influence of heredity: First, an attribute which appeared in the parent at a certain period of life tends to appear in the offspring at the same period of life. Second, when the same attribute appears in several generations but is not congenital, it may appear at an earlier age in each successive generation. Third, attributes pertaining to one parent (especially those that appear late in the life of the parent when the reproductive functions are active) tend to be reproduced in that sex alone. Fourth, attributes pertaining to one parent are sometimes transmitted to the offspring of the opposite sex alone. Fifth, the attributes peculiar to one parent may be the most apparent at one period of the life of the offspring and those of the other at another. Sixth, from the possession by the offspring of one attribute peculiar to one parent, the possession of other attributes may be inferred. Seventh, an individual ancestor may import into a race mental characteristics which may persist for generations, after all physical characters introduced by the same ancestor have disappeared.

Morel[1] finds that heredity manifests its influence as follows: First, In such manifestations as appear in extreme exaggeration of the nervous temperament of the parent. Second: In such as are evidenced by evil desires or perverseness, the morbid manifestation showing itself by senseless actions rather than by delusions or speech. Third: Such as appear in an increasing limitation of mental power, mental apathy and weakness. Frequently there is found in this class of individuals all sorts of evil inclinations. Fourth: Mental weakness from imbecility to the deepest idiocy and cretinism.

Progressive uninterrupted transmission leads finally to extinction of the race. Occasionally what may be called atavism makes its appearance and an individual is born who has all the mental capabilities of an earlier ancestor. For example, Schopenhauer, the pessimistic philosopher, sprung from a family of imbeciles.

Wille[2] says that the subjects of heredity in relation to the psychoses can be divided into four groups. First: Descendants of parents subject to psychoses and neuroses, and showing from birth or early infancy evidences of abnormal cerebral organization. Secondly: Children of like parents, but developing normally for a series of years, and reaching even the highest degree of development possible to them, but then becoming subjects of encephalic disorder. The third group presents no psychic or nervous abnormality during their lives, but their children become victims of morbid cerebral conditions. The fourth group, although the offspring of parents, the victims of neuroses or psychoses remain healthy themselves and their descendants. This immunity being due to fortunate cross marriages.

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[1] Somatic Ætiology of Insanity, p. 65.

[2] Zeitschrift für Psychiatrie, Band xxxvii.

[3] Idiocy.

[4] Journal of Mental Science, October, 1882.

[1] Les Dégénérescences de l'Éspèce Humaine. Archives Générales de Médecine. September, 1859.

[2] Correspondenzblatt für Schweizer Arzte, April 15, 1875.

Anstie[1] has described two varieties of heredity. The first is the Active Heredity, where the disease is directly inherited. The other is the Dormant Heredity, where a transmutation occurs. Lucas[2] divides heredity as it is manifested. First: In mere predisposition. Second: In the latent state or germ of the disease. Third: In the patent state or actually developed disease. Ribot,[3] Maudsley,[4] Trélat[5] and Jung,[6] have expressed similar opinions. It would appear from these observations that in certain cases types of insanity may be directly inherited and cases of this kind are by no means wanting in the literature. Esquirol,[7] Falret,[8] Moreau[9] (de Tours), Taguet,[10] Le Grand du Saulle,[10] Luys,[11] Gintrac,[12] Parchappe,[13] Lunier,[14] Lautard, Godding[15] and Griesinger, all report cases of this kind.

The mere existence of insanity in a parent is not always in direct relation to the sanity or insanity of a child. Thus a man might acquire from sunstroke a tendency to insanity. On the child born before this occurred such a predisposition would exert no influence, while on those born after, the influence might be very marked.

Hammond[16] reports cases in which the influence of alcoholism in the father was exerted in the same way as regards the children.

According to Griesinger[17] the children who are born before the period of manifestation of the mental disease are less frequently attacked than those born after. On the other hand, it happens that where there is marked heredity from the ancestors, the child may become insane before the parent. This corroborates the position taken by Morel and Mercier.

The same principle is illustrated by the experience of Rennert,[1] who had examined seventy children, born from eleven fathers and two mothers, who were potters suffering from severe saturnism. The father and mother of the first family suffered from lead poisoning of the chronic type. There were eight children of whom two died early from convulsions. The remaining six were victims of epileptoid phenomena and had "large angular" heads; one was idiotic and two gave evidences of congenital lead poisoning.

The father and mother of the second family both suffered from chronic lead poisoning; had ten children; twins once, of whom one died immediately after birth. The rest of the children, all macrocephalic, presented epileptoid phenomena.

The father of the third family suffered from chronic lead poisoning, the mother from the acute form. There were five macrocephalic children of whom three died; one from convulsions, two *inter-partum*. Of the remainder one was a rachitic idiot, who suffered also from congenital saturnism; the other was rachitic.

The father of the fourth family was a chronic case of lead poisoning; the mother suffered from acute lead poisoning. There were ten macrocephalic children, of whom seven died from convulsions. The other three are epileptics; one suffering from paralysis of the left upper extremity.

The father and mother of the fifth family both were the victims of chronic lead poisoning. There were eleven macrocephalic children; all died from convulsions except a stillborn child.

The father of the sixth family was an inebriate and case of chronic saturnism; mother healthy. There were four children; two macrocephalies died of convulsions.

The father of the seventh family suffered from chronic lead poisoning; mother from acute. There were four macrocephalic children; two died; two epileptic.

The father of the eighth family had acute lead poisoning; mother healthy. Eight children; three macrocephalic died from convulsions; five healthy.

The father of the ninth family had chronic lead poisoning; mother healthy. There was one living macrocephalic child; two children died from convulsions, who were not macrocephalic.

The father of the tenth family was acutely poisoned with lead. One macrocephalic child; rest healthy.

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[1] Journal of Mental Science, January, 1872.

[2] Traité Philosophique et Physiologique de l'Hérédité Naturelle.

[3] Journal of Mental Science, January, 1863-64.

[4] Etude Psychologique.

[5] Annales Medico Psychologiques, 1856, p. 21, 175.

[6] Ibid, 1867, p. 160.

[7] Maladies Mentales.

[8] De l'Hypochondrie et du Suicide.

[9] Psychologie Morbide, p. 168.

[10] Annales Medico-Phychologiques, 1877, p. 5, tome II.

[11] Maladies Mentales, p. 218.

[12] Memoires de l'Académie de Médicine, tome XI., p. 70.

[13] Recherches Statistiques sur l'Alienation Mentale, p. 49.

[14] Annales Medico-Psychologiques, 1876, p. 387.

[15] Two Hard Cases.

[16] Neurological Contributions, Volume I., No. 1.

[17] Op. Cit., p. 100.

[1] Archiv für Gynäkologie. Band XIV.

The father of the eleventh family suffered from chronic lead poisoning; two mothers; two children from each wife still-born; one died of apoplexy; rest living and macrocephalic. The living macrocephalic children were not up to the normal standard of mentality.

Insane heredity following the usual laws of heredity may skip one generation or may only evince itself by its manifestations in the paternal or maternal brothers or sisters. As Ray[*] says: "the uncle or aunt rather than the parent may present the connecting link between grandparent and grandchild." The government experts in the Guiteau case[†] denied this well known fact, attempting to controvert it by the would-be witty comment that a man could not inherit insanity from his uncle.

The condition of the mother during pregnancy may act as a predisposing cause of insanity in the child. Curwen[‡] cites a case in which a mother of normal ancestry was attacked with asiatic cholera during confinement followed by insanity. The child when born was a moral lunatic, differing from all her brothers and sisters.

The great trouble about education is that in lieu of training the individual for certain contingencies it prepares him for just the opposite. The child as a rule is taught chiefly to value the school standard of honors and this imposes on the premature brain the same strain to which it is subject in after life during the fierce struggle for existence. In lieu of teaching the child facts and teaching it to regard losses with fortitude, it is taught to struggle and is spurred to this struggle by all varieties of inducements. Leppman,[§] who has recently studied the alleged effects of over study, as shown in patients committed to the psychiatrical division of the hospital, is of the same opinion as Virchow, that nervous and mental diseases among school children do not arise so much from overtaxing weak intellects, as from certain causes arising from the existence or approach of the period of puberty. Another strong cause is the stimulation of the spirit of emulation, which has much the same effect as business worry among the adults.

Similar views have been expressed by Clouston[*] and Tuke[†]. There can be but little doubt also that, as pointed out by Ideler and Griesinger,[‡] the constant inculcation of peculiar ideas by the example of an insanely predisposed parent exerts an influence on the production of insanity in the children. In the United States education as a rule exerts doubly deleterious influence, since here it is regarded not as an end but as a means toward an end—a property entitling the holder to certain privileges. It may safely be assumed that over study *per se* exerts but slight influence in the production of insanity, but that the influence of the bad system of education is marked. It has been observed that in many cases after insolation, traumatism, rheumatic delirium, and certain fevers, the patient has evinced a tendency to develop insanity on the application of very slight exciting causes which was not previously existent. Alcohol, as has been shown by Griesinger, also acts as a predisposing cause.

Independently of the influence of changes going on at certain periods, age exerts some influence in the production of insanity. While not frequent in children, insanity does occur. Thurnam[§] has found that out of 22,000 cases of insanity, eight were children under ten years. Haslam,[¶] Perfect, Fosille (two cases), Esquirol, Spurzheim,[1] Guislain,[2] Zeller,[3] Pignoces,[4] Griesinger,[5] - Hammond,[6] and myself[7] have observed cases of insanity at the ages of six, seven, eight, nine, ten, twelve and thirteen years.

Morel[8] has reported one case in which a girl of eleven attempted to murder her mother during attacks of pathological fury.

Romberg[9] reports the case of a child six years old who was seized by a pathological fury during which it made wild attempts of destructiveness.

Dr. Chatelain[10] reports a case of a girl of four who was attacked by visual hallucinations after a fright and exhibited homicidal tendencies.

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[*] Mental Pathology.

[†] Official Report of the Guiteau Trial. Evidence of Drs. Gray, Kempster, Macdonald, Barksdale and Everts.

[‡] American Journal of Insanity, October, 1874, p. 194.

[§] Deutsche Medizinal Zeitung, Oct. 13, 1881.

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[*] Journal of Mental Science, April, 1883.

[†] Gaillard's Medical Journal, vol. XXXV, 1883.

[‡] Opus cit.

[§] Opus cit.

[¶] Cited by Griesinger, opus cit.

[1] Osserv. sulle Alienation Mentale, p. 34.

[2] Dictionaire de Médecine I, p. 516.

[3] Maladies Mentales.

[4] Les Phrenopathies.

[5] Observations on Madness.

[6] Alienist and Neurologist, April, 1883.

[7] Journal of Nervous and Mental Disease, July, 1882.

[8] Journal de Médicine et de Chirurgie Pratiques, 1882.

[9] Deutsche Klinik, 1857, p. 178.

[10] Journal de Médecine Mentale.

Griesinger[1] and Marce[2] have noticed similar phenomena in children of from three to four years. Magnan[3] reports the following case: A child of three who was subject to attacks of pathological fury. At four there were hallucinations of sight, hearing and taste. It described its hallucinations, which had for their object the suicide of the child. It was small, lean, little developed and markedly depressed. Like cases have been reported by West,[4] Delasiauve,[5] Paulmier,[6] Scherpf[7] and Fink.[8]

Kohler[9] remarks the existence of a certain class of defective children, sent to idiot asylums, who should more properly be designated as lunatics, and are, therefore, subjects for the alienist, rather than the pedagogue. One boy of twelve would listen at the door, as if the subject of a hallucination, then suddenly dart through the room and tie himself with a handkerchief, thread, or anything else he could find, to a chair. Another exhibited the type of micromania to perfection. Analogous observations have been made by Ireland[10] and Kerlin.[11]

Emminghaus[12] refers to an older observation by Greding, of a child born with destructive tendencies, and dying with them before reaching the second year.

The age at which insanity has been found to be most frequent is between twenty-five and fifty. It is more frequent between sixteen and twenty-five than between fifty and seventy five. Old age predisposes to certain types of insanity which are peculiarly the results of senescence. This, however, does not preclude the possibility of other forms occurring in old people. The influence of parental inter-marriage *per se* is not by any means easily settled. There are numerous statistics bearing on this subject, but these are very impure. The ancestry of the inter-married couple is not given, and the question therefore remains unsolved as to whether the children of such inter-marriages inherit a double portion of ancestral taint, or simply have such taint created for them by the inter-marriage. It may be safely set down, however, as an established fact, that inter-marriages in a limited social circle exert a deleterious influence on the offspring. Thus Jacoby[1] says, respecting the extinction of aristocracies, that "the sudden extinction of noble and aristocratic families is wholly and entirely due to the exclusiveness of their position. Without contracting precisely consanguineous marriages, they nevertheless generally marry those who are of their own set, educated in similar surroundings and brought up under similar influences. The neurotic element is thus developed and increases rapidly."

The influence of sex is difficult to trace. Many conditions which did they occur in men would be regarded as insanity, are not, in women, regarded as manifestations of insanity. There are more women than men in asylums, but this is due to two facts: Men both recover more quickly from certain acute diseases, and also die more rapidly when insane. Progressive paresis, a very fatal affection, is infrequent among women. The fact is, as stated by Bucknill and Tuke,[2] that fewer women become insane than men, but the influence of sex is not very apparent, since men are more exposed to the exciting causes of insanity.

The influence of race has been studied most at length by Dr. Spitzka[3] and myself. From the statistics furnished by me from the New York City Asylum for the Insane, Dr. Spitzka has drawn the following conclusions: On the whole, the different forms of insanity occur in nearly the same proportion in the Anglo-Saxon, Teutonic, Celtic and Hebrew races. Paralytic insanity is most common among Anglo-Saxons and least common among negroes. Melancholia is most common among the Germanic peoples. The tendency to terminal dementia is greater in the Anglo-Saxon than in the Celt or German. Hereditary types of insanity are most frequent among the Hebrews.

The effect of occupation is very marked in the production of influences acting as predisposing causes. The speculative occupations are very productive of certain types of insanity. The occupations of peculiarly intellectual type are opposed to the production of insanity. Other occupations predispose to insanity from the influences to which they expose the patient.

EXCITING CAUSES.

The exciting causes may be ranged into the two great classes, moral and physical. According to Bucknill and Tuke,[1] physical causes are the most active agencies in the production of insanity; in this opinion Dr. Earle also coincides.[2]

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[1] Opus cit.
[2] Opus cit.
[3] Memoires de 'l Academie de Médecine xxiv, L. 1860, p. 1.
[4] Diseases of Children.
[5] Annales Medico-Psychologiques, tome viii.
[6] Affections Mentales des Infants.
[7] Jahrbücher für Kinderheilkunde, 1881.
[8] Allgemeine Zeitschrift für Psychiatrie, Band xxxviii.
[9] Irrenfreund, No. 11, 1878.
[10] On Idiocy.
[11] Journal of Nervous and Mental Diseases, 1879, p. 560; Alienist and Neurologist, January, 1882.
[12] Allgemeine Psychopathologie.

[1] Studies on Selection in its Relation to Human Heredity.
[2] Psychological Medicine.
[3] Journal of Nervous and Mental Disease, 1881, p. 630.

Pinel and Esquirol,[3] Brierre de Boismont, Marcè[4] Guislain,[5] Parchappe, Hood[6] and Griesinger,[7] are of the opinion that moral causes are the most potent agencies in the production of insanity. My own experience, carefully analyzed, fully agrees with that of Griesinger. The reason of the different opinions expressed is the confusion of predisposing with exciting causes. The most potent of the moral causes is domestic anxiety or grief. Calmeil claimed that war was a very potent cause, but the influence of war and political commotions seems to be exaggerated. At the same time, the fact that lunatics are then not so much out of accord with their surroundings, diminishes the number of asylum admissions, and therefore apparently decreases insanity. During the war of the rebellion, many lunatics went into the army and were benefited by its discipline, who would in time of peace have entered an asylum. This is borne out by the observations of Fröhlich[8] on psychoses among soldiers. While therefore, Le Grand du Saulle's[9] conclusion that "the gravest political events give a color to the particular form of insanity, but do not produce an increase in the number of lunatics," is probably correct, it is so to a very limited extent. Had the mental condition of those shot as communists been examined, it is probable that a large number of typical hereditary lunatics would have been found among them, since Lunier[10] found that very few hereditary cases were admitted to the asylums, as an apparent consquence of the war.

At the same time the fact should be admitted that the influence of a war in the production of insanity is best shown a few years after its cessation.

Religious excitement is also a much over estimated cause. In but two out of twenty-five cases referred to this cause and coming under my observation was there any reason for believing that religious excitement influenced the case at all. The other twenty-three were chronic lunatics who had wandered into religious assemblages and become excited there as they would have done in any great conclave of people.

Fear has been charged with producing insanity, and of its doing so occasionally there can be no doubt, as witness the following case:

Case 3.—A young man brought up on a farm, was much given to the perusal of sensational literature. He was very superstitious and frequently expressed a fear of ghosts. The boys of the neighborhood becoming acquainted with his weakness, devised a plan to frighten him with a pretended spectre at midnight. He always slept with a large revolver in easy reach. During the day the ball cartridges were replaced by blank cartridges and the weapon restored to its usual place. At midnight the victim of the practical joke was awakened by a seeming spectre which stealthily entered the room and stood with outstretched arms muttering unintelligibly. The victim hurriedly grasped his revolver and sat upright in bed dumb through fear. The ghost advanced a step, the mutterings continued. When the young man, wrought up to almost a frenzy, drew the weapon and stammered, "If you are a man, I shall kill you; if you are a ghost, this won't hurt you;" and fired. There was a quick motion of the shrouded arm, and the bullet was thrown back, striking the head-board. A second time he took deliberate aim at the figure and fired. Again a motion as if catching the bullet, and it was thrown back upon the bed. He fired a third, a fourth, and fifth shot only to have the bullets hurled back with noiseless motion from the ghostly figure. Then for a brief moment he sat as if transfixed, gazing with mute bewilderment, when, with a wild shriek of terror, he fired the last blank cartridge and hurled the pistol at the ghost.

When the pretended ghost revealed himself, the victim was found in a dead faint, which gave way to an attack of melancholia with frenzy. There were marked initial hallucinations of sight and hearing. He recovered after three months' treatment in an asylum. One of the planners of the joke became insane through remorse, but also finally recovered. In the first case the nervous system of the individual was of a nature predisposing to insanity under such circumstances.

Disappointed love gives rise to fewer cases of insanity than is generally claimed. One-half the cases ascribed to this cause coming under my observation were cases of monomania, in which one of the earlier symptoms was regarded as a cause. In other words, the man made love and was disappointed because he was insane, and not *vice versa.*

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[1] Psychological Medicine.
[2] Report of the Boston Lunatic Asylum, 1851.
[3] Maladies Mentales, Tome I.
[4] Maladies Mentales.
[5] Les Phrenopathies.
[6] Statistics of Bethlehem Hospital.
[7] Mental Pathology and Therapeutics.
[8] Zeitschrift für Psychiatrie, Band XXXVI.
[9] Annales Medico-Psychologiques.
[10] Annales Medico-Psychologiques, 1875.

Is Inebriety a Vice?

BY T. D. CROTHERS, M. D., HARTFORD, CONN.,
SUPERINTENDENT WALNUT LODGE.

IN the annual report of the Cleveland Asylum for the Insane for 1882, Dr. Strong, the superintendent, makes the following pertinent remark: "A candid criticism of any subject, or institution, a criticism which clearly implies thorough knowledge of the matter criticised, will always be welcomed and respected by every friend of truth and progress. Exceptions will not be taken to such a course by those in charge of asylums. What we complain of is, *unjust judgments* based on *reckless statements.*"

The italics are mine to give prominence to this statement. Encouraged by this invitation I propose to call attention to some parts of this most admirable report, which reflects great credit on the author especially where he is familiar with the subject; but when he leaves the beaten track to discuss inebriety the reader is both pained and puzzled.

In discussing the objections to inebriates in insane asylums, occurs the following statement: "Drunkenness is a condition which is voluntarily induced, and hence responsibility attaches to the man who surrenders himself to its baneful influences. He has no claims on the benevolence of the state in the sense that the insane have, or those whose misfortunes were by circumstances independent of their control."

"Drunkenness must, as a rule,be regarded as a crime against the citizen, against the family, and society. The moment we attempt to call it something which it is not, whenever we attempt to classify it with an entirely different class of maladies, we are diverging from the truth, and seeking after the impossible. To sugar-coat drunkenness with some other name —to call it insanity, for instance—and treat it as such is far from being a mercy to the drunkard himself. It virtually says to him, that he is a martyr instead of a criminal. He escapes by such a course, the disgrace and penalties which logically follow crime, and hence is encouraged to persist in his career of debauchery. Let drunkenness become odious in public estimation, the more so the better; let it be frowned upon by every good citizen as a crime, and let it be punished as such; in a word, make it exceedingly unpopular, and the effect will be vastly more salutary than coddling the drunkard, or palliating his conduct. Talk as much as we please about the exterior aids to drunkenness; the trouble begins within, like other crimes; and like other crimes, too, the cure must begin within. He must of course, sooner or later, reap the bitter fruits of his bad acts, and if, after paying the penalty of violated law, he have the good sense and moral stamina to voluntarily forsake a course which he voluntarily began, he may recover."

Precisely the same views were urged against the insane, and were heard as late as 1836 in Boston, Mass. The student of mental science who persists in ascribing to moral causes phases of mental disorder which are not understood, has much yet to learn.

Clergymen and non-experts generally who seek to understand natural phenomena by reason and inspiration find evidence to sustain a theory of vice in inebriety. But to the student of science who seeks for facts, not theories, inebriety is never a voluntary vice, but is always a disease, often more pronounced than insanity. These facts were observed twenty centuries ago, and have been urged and defended by a long array of physicians and philosophers down to the present time.

The British Medical Association, the American Medical Association, and the Association of Medical Superintendents of Insane, have all recognized the disease of inebriety, and urged that it be treated in separate asylums by special means and methods.

Eminent physicians of Europe have long ago recognized the same facts, and urged as, Dr. Strong has,that the inebriate be treated in separate asylums.

None of these authorities have ventured to describe the nature and character of this disease, for the simple reason that it would be mere dogmatism, to discuss questions that could only be settled after years of accurate study, by many competent observers.

To pronounce inebriety always a vice, and then urge that the inebriate be placed in work-house hospitals, and receive the "necessary medical treatment," is not quite clear to the reader. It would seem most logical that from the vice theory, the treatment of the inebriate should be always in prisons and jails.

This theory of vice, and arguments in its defence will form one of the most curious chapters in the history of psychological literature. The tenacity which sustains old superstitions, long after they have been passed by the march of science, is equally curious and strange.

Inebriety is a physical disease and its problems are physiological and psychological. Many of its causes are clearly traceable; others are obscure. In many cases heredity, psychical traumatism, strain and drain of all forms, and every condition of bad surrounding and neglect are prominent causes.

Like insanity, many cases of inebriety are not understood, because they are not studied, and the knowledge of the subject is yet limited. Having established the presence of a distinct physical causation in some cases of inebriety, it is clear to infer that it exists in other cases that are not understood.

In the grouping of the history of a large number of cases, it will be found that they follow a uniform line of march. Beginning in some definite way from causes known or unknown, they follow a certain order of progression. Given a certain number of inebriates and the progress and termination of the disease may be predicted with certainty. In certain surroundings and physical conditions inebriety will positively break out. Certain material and physical influences will antagonize this disorder. No mental or moral training will prevent the outbreak of inebriety in favorable physical conditions for its development. No mental or moral treatment can check it when once established.

Inebriety is a physical condition to be met on the plane of physical laws and forces. Alcohol is only one of many causes, and in most cases it is merely an exciting cause, exploding a state of degeneration which has been growing up out of the past. Inebriety viewed from the standpoint of science, will be found under the control of laws, clear and unmistakable. The presence of so vast an army of inebriates is not a matter of chance or moral lapse, no more than cholera or yellow fever is a direct visitation of God for sin. Inebriety is simply the expression of a diseased and degenerate organism, growing out of many and complex conditions in the past. Take any case and study the biography, the heredity, the many circumstances, external and internal, and all the tides of joy and sorrow, success and defeat, depression and exaltation, from both physical and mental conditions, which enter into every day life, and inebriety as a disease and as a result of these conditions will be found a fact beyond all question.

The problems of the nature and cure of inebriety can only be solved from a study of these conditions and the laws which govern them. It can be cured and prevented as easily as any other disease by the use of means along the lines of its natural history.

Like an unknown continent inebriety cannot be known except from actual observation and clinical study.

This is the great field of preventive medicine for the future. A knowledge of the laws and forces which govern inebriety will point out the means to avert insanity, idiocy, pauperism and criminality.

It is conceded by all that one of the most prominent causes of insanity is inebriety. The study and treatment from a rational point of view is clearly a means for the prevention of insanity. To call it a vice, and all efforts to study it scientifically sickly sentimentalism, is to practically ignore one of the most active factors in psychicatry.

The question is not one of theory, but one of observed fact. Inebriety, as a disease, does not depend upon the statements of experts, but can be tested by every physician, who will carefully gather all the facts and their bearing in a case of inebriety.

The subject is growing in interest and importance and has been carried into the field of religion and politics. Theories that have no support from observed facts, form the basis of the most absurd means and measures, and are repeated with an intensity and dogmatism that carries conviction to many minds.

The time has come for the facts and the laws which govern inebriety above the dogmas of moralists.

The subject is one for science to determine, and physicians should educate the public what it is and how to reach it. In conclusion I urge that this subject be taken up by the profession and examined from a higher point of view; that all dogmatism be put aside until the subject is understood in some measure. Then there will be some reason for the theories advanced worthy of consideration. The question of disease is practically settled, but all the many fields which follow from this point are very largely unknown. This is the true province for scientific observers, not in raising objections, but in gathering facts no matter what their bearing may be. Inebriety should be studied without any previous theory, but simply to find the facts and their meaning.

The Treatment of Syphilis.

BY JAMES ORR, M. D., TERRELL, TEXAS.

THE importance of syphilis as a disease, and the frequently unsatisfactory results attending its treatment, render it of peculiar interest to the practitioner, and any line of treatment giving evidence of success should meet with a welcome reception.

The old ideas of treating syphilis with mercury, iodide of potassium, and sarsaparilla, had been so firmly engrafted on my mind, that I found it difficult to try any other plan until a year and a half ago I concluded to take a new departure and use the cascara amarga, so extensively advertised by Messrs. Parke, Davis & Co., of Detroit, Mich. The following cases attest the efficacy of that drug in the constitutional forms of the disease, and certainly place it in the line of promotion among older remedies of its class.

Case 1.—Was called to see J. A., in October, 1881. Three months before, he had contracted primary sore, which a druggist had treated with iodoform, locally, and the internal use of iodide of potassium and sarsaparilla. Since the sore healed he had contracted gonorrhœa, which had resulted in "swelled testicle," for the treatment of which I was speedily called to see him. In addition to his gonorrhœal trouble, he had two partially healed buboes, a well marked syphilitic sore throat, a large and painful periosteal swelling on right parietal bone, and a miliary eruption over the entire body, but most marked on breast. Appropriate treatment soon relieved the gonorrhœal symptoms. For the syphilis he was ordered fl. ext. cascara amarga in teaspoonful doses three times a day. In one month he was fully restored to health and his usual strength, every vestige of syphilis having disappeared. He was required to continue treatment two months longer, but during the last he only took his medicine once a day. At this time, March, 1883, no relapse has ever taken place.

Case 2.—T. B. presented himself to me for treatment in October, 1881, having contracted a sore six weeks prior, which had been healed by iodoform, recommended by "one of the boys." He had a large bubo in left groin; several periosteal swellings on head, sore throat, and a copper-colored eruption at edge of hair, several of which pimples coalesced and formed a common scab—this soon fell off and left a deep-seated purplish spot which was three months disappearing. He was completely exhausted and broken down. Ordered teaspoonful doses fl. ext. cascara amarga three times per day with appropriate hygiene, under which he progressed slowly to recovery and was discharged cured at the end of three months with instructions to take the medicine once a day for three months more. No relapse has taken place so far, nor does he present any signs of the disease whatever.

Case 3.—Was called to see J. B., July, 1882. Found him with partially healed sore which had been cauterized and treated with black wash. A large bubo had proceeded to suppuration in left groin, his throat was sore, and a small spot existed at left side of forehead. I lanced the bubo and after a few days poulticing it healed rapidly under local application of iodoform. Teaspoonful doses of cascara amarga were ordered three times per day, which was continued three months, although no sign of the disease remained after he had taken the medicine three weeks.

Several other cases could be given, but for the present these are sufficient. In each the evidence of the existence of syphilis was unmistakable; no other constitutional treatment was used and the cure so far has been complete, from which I take it that we have a valuable addition in this medicine to our list of remedies for constitutional syphilis.

Proceedings of Societies.

Meeting of Detroit Academy of Medicine.

DETROIT, Jan. 16, 1883.

The academy met at the residence of Dr. Gilbert. In absence of the president and vice-president, Dr. Noyes was called to the chair.

WRITTEN COMMUNICATIONS.

Dr. Spalding, after explaining that he had not had the time to prepare the paper announced gave a verbal report of a case of tracheotomy for the relief of œdematous laryngitis.

The patient was a child six years old. At 2 A. M. in the morning, January 2d, the father came to my office saying that his child had croup, and nothing seemed to relieve it. I was about to put up some emetic for the immediate relief of the little sufferer, and postpone my visit for a more convenient hour, but when I learned that the child had been sick several days, I concluded to go at once and see what was its real condition. I found the patient with the ordinary appearance of laryngeal spasm, but also with much irritation of the larynx aggravated by the incessant coughing. An emetic gave some relief, but the next day I found the child still suffering for want of air. I ordered fomentations of hot water, and steaming the throat with an extemporized apparatus. The next day I began the use of the steam atomizer, using also a little bicarbonate of sodium although there was no appearance of any membrane. The atomizer gave relief only while continued, and at the end of 48 hours the patient's condition was becoming serious. I resolved to call counsel, believing an operation to be the only remaining resource. Dr. Robertson saw the patient with me. The child was nearly asphyxiated, making ineffectual attempts to cough. There was still no membrane. I had employed potassium iodide, quinine and syrup of Dover's powder, with some benefit in the way of loosening the secretions. Dr. Robertson suggested carbonate of ammonia, which was tried, but with little benefit. No time was to be lost, and a few hours later the tracheotomy was performed by Dr. Robertson. The patient was in such a condition of exhaustion that although the operation was rapidly performed he collapsed under it, and we feared we should lose him before he could get the benefit of the operation. Indeed for some minutes there was no evidence of life except the feeble pulsation of the carotids. Artificial respiration was resorted to, and persisted in faithfully for five or ten minutes before there was a single gasp in response, and it was twenty minutes before regular natural respiration was established. From that time, however, the child reacted. There was a moderate amount of fever following the operation, but the patient has been carefully nursed and is now in a fair way to recover. The case is reported because instances are believed to be rare of œdematous laryngitis in young children. Examinations were made after the operation showing that the œdematous condition extended far down the trachea. We had no hope of saving the child's life without an operation. According to McKenzie only one case of this kind out of 17 recovered without an operation and we believe that this small chance warranted the operation.

Dr. Robertson: This case has been of great interest to me and the result is encouraging. There was no fever attending the development of the disease. There was absolutely no membrane, diphtheritic or croupous, on any part of the fauces or larynx. Dyspnœa was due solely to œdema. Since the fourth day after the operation the tubes have been removed daily, but for more than a week respiration could not be carried on through the natural passage. This morning the patient was able to breathe quite comfortably, and the tube was removed. He got along without it all day, but at eight o'clock I found that the breathing was again becoming croupous, and I put in a smaller tube—one of hard rubber—fearing ulceration of the trachea from the larger (silver) one. Two younger children in the same family had catarrhal laryngitis, but showed no sign of diphtheria.

I recently assisted Dr. Jennings in an operation in a case of diphtheritic laryngitis. In this there was fever, presence of diphtheritic deposit, fetor, etc., symptoms which in the case reported were all absent.

Dr. Petershausen: Was the œdematous swelling principally below the larynx?

Dr. Robertson: There was swelling below the larynx, but there was enough œdema in the larynx itself to produce the dyspnœa.

Dr. Petershausen: I had a case very similar to this one last year. The larynx was narrow; the swelling mainly below the vocal cords. The patient died on the fifth day after the operation from intercurrent bronchial trouble. There was hardly any fever in my case, except following the operation. The weather was unfavorable, and the patient did not receive proper care. On the fourth day bronchitis supervened, but I did not anticipate serious results. I was surprised to find the patient on the next day already dying from asphyxia. There was no trace of diphtheria. The description given by Dr. McKenzie does not cover my case. He seems to think such cases very rare, and perhaps they are in England. My patient was six years old.

Dr. Noyes: Do you keep the temperature in the room regulated after such operations?

Dr. Robertson: Yes, and I keep the air saturated with moisture by having water evaporated on the stove.

Dr. Noyes: Dr. Trousseau used to insist on keeping the opening of the tracheotomy tube covered with muslin so that the air might not come too suddenly into the trachea. He also reiterated the injunction to operate early.

Dr. Robertson: As a rule patients or their friends are opposed to an operation, and so it is deferred until too late to save the patient. In our case the parents were willing.

Dr. Gilbert: On the fifth of this month I saw a case of croup in consultation. The patient had suffered severely and was in an alarming condition. We saturated the air of the room with steam—at first by heating bricks and quenching them in a tub of water—later and more effectually by throwing water upon the heated stove. As long as the air was charged with vapor of water, breathing was comparatively easy. A week after I first saw the child the breathing became so labored, even when the steam was used, that we thought an operation must be resorted to for relief, but the child began from that time to recover. The case was similar to that reported by Dr. Spalding. There was no diphtheritic membrane.

Dr. Robertson: We found the steam atomizer an efficient means of charging the air with vapor.

Dr. Gilbert: We made use of the atomizer also locally. I can testify from my personal experience to the value of steam in relieving symptoms in acute attacks of laryngitis.

Dr. Robertson: While I was in Philadelphia at the time of the Centennial exposition, I was called to prescribe for a patient in the same boarding-house who had an attack of acute pharyngitis. I extemporized a steaming apparatus with the aid of an old tea-pot, and had the satisfaction of effecting a speedy cure. After that I had to go out nearly every night with my tea-pot, the reputation of which spread far and wide.

Dr. Gilbert: We are learning more and more of the value of hot water as a therapeutical agent. One extols it in the treatment of the eye; another finds it the best means of relieving bilious vomiting.

Dr. Maire referred to a case of acute pharyngitis in which the distressing dryness of the throat was relieved by applications of cream.

Dr. Andrews: We are not always able to get cream. I have made use of petrolina oil—a purified petroleum product—with good effect in similar cases.

Dr. Spalding: Why is it that laryngitis occasionally assumes this dangerous form? We often have several cases in a family of ordinary colds and sore throats, while in one only is this œdematous condition of the larynx present. We can only suppose that in these cases the force of the inflammation is expended at this point rather than in the pharynx or the bronchial tubes, but why it should select this site in the rare instances we cannot tell.

Dr. Petershausen: My patient had had frequent attacks of so-called croup (spasmodic) and of ordinary bronchial trouble. I think the fatal result may have been due to some mistake in carrying out the treatment, if not to mere negligence. I could not understand how so dangerous a bronchial complication could become established so rapidly. When I saw the child on the fourth day after the operation there seemed nothing serious to fear, and the next day the child was dead.

Dr. Robertson: I think a tracheotomy tube of small size is perhaps to be preferred. It allows the air to pass outside of it, and besides is in less danger of producing irritation of the trachea.

I was recently called to a house which was placarded 'diphtheria." There had been a death in the family, and other physicians had disagreed in regard to diagnosis, but of this I was in ignorance. I made a diagnosis of catarrhal inflammation of the larynx, with capillary bronchitis. There was no sign of a membrane, but the health officer insisted on the correctness of a former diagnosis of diphtheria. It seems to me that in such a case a health officer has nothing to do but to accept the diagnosis of the attending physician.

Adjourned.

JUDSON BRADLEY, M. D., President.
A. B. LYONS, Sec'y.

JANUARY 9th, 1883.

The academy met at the office of Dr. Noyes, Dr. Bradley presiding.

EXHIBITION OF PATIENTS.

Dr. R. was introduced to the academy as a patient by Dr. Noyes.

The patient six years ago had an attack of acute conjunctivitis, probably catarrhal, affecting the right eye. The inflammation soon ran into the purulent form. The case was successfully managed, as was thought, at the time, but it left the eye with a weakened condition of the upper lid, which was somewhat thickened and disposed to droop.

In April last the patient had an attack of ulcerative keratitis. The case was treated at Akron, Ohio, but not with encouraging results, and in July the patient consulted eminent oculists in Cincinnati. He was at that time suffering severe pain from intra-ocular pressure, and this was relieved by puncture of the eye-ball, and the surgeon encouraged him to hope for ultimate recovery. The inflammation, however, proved rebellious, and the whole upper part of the eye developed a condition of pannus, and all use of the organ was lost. In this condition he consulted me, not hoping to recover vision, but to obtain relief, if possible, from the acute suffering produced by the condition of his eye.

When I first saw him, the whole cornea

was in a condition of pannus, looking just like a piece of red velvet. On everting the lid, the cause of this condition was at once apparent in the presence of numerous horny points, the summits of old granulations. The cause of such a condition is frequently the injudicious use, in the treatment of conjunctivitis, of powerful remedies, such as silver nitrate and copper sulphate. Physicians in the country often attempt to destroy the granulations by the use of these caustics, and the result is such as you may see in the present case.

The treatment of this condition is sufficiently simple. It consists in snipping off these cartilaginous points with an appropriate instrument. Some years ago I devised for this purpose this little instrument, which is simply a pair of tweezers, with cutting edges, like a pair of miniature cutting pliers. I find this plan of treatment as efficient as it is simple, and the result of it is well illustrated in the case of the present patient. You perceive that the cornea, although opake or thickened, is no longer covered with a net work of enlarged blood vessels, and the patient is relieved from the acute suffering, which had been constant with him for weeks before he came under my care. One other plan is sometimes pursued in these cases with success. It consists in exciting an acute inflammation in the affected membrane, leading to absorption of the old granulations. But the method pursued is clearly the more rational one, and the results in this case and in many others justify the preference I am disposed to give it.

Dr. Reed: One portion of the history has not been alluded to. When I was six years old a person came into our family who had sore eyes. By using the same towel we children caught the infection. I was the last one affected, and had a serious inflammation at that time of the left eye.

Dr. Connor: I have seen some very remarkable results from the removal of old granulations in the manner recommended by Dr. Noyes.

One patient of mine came to me from Montreal practically blind. She could distinguish light, but could not make her way to my office, except as she was led by an attendant. In three weeks she had recovered a useful degree of vision, so that she was able to come to my office unattended.

MISCELLANEOUS BUSINESS.

Dr. Connor: We have all of us been interested of late in the subject of the compulsory registration of deaths from infectious diseases. I observe that Dr. Billings, known as one of the foremost advocates of all judicious measures to improve the public sanitation, has lately expressed himself as still of his former opinion that vital and mortuary statistics can be of value only if they are collected in a systematic way by paid employes of the general government. This may be efficiently done either by the census bureau or in connection with the National Board of Health, but it must be done by those who are paid for that especial work. It is quite impossible to compel physicians to do this work. A better plan would be that adopted in England, to require the families of the deceased to fill the requisite certificates, but even this plan will not furnish statistics of much scientific value.

Dr. Cleland: It turned out in the trial of my test case that provision is already made for procuring the statistics which physicians have been called upon to supply gratuitously, and that the work is already paid for by law.

EXHIBITION OF INSTRUMENTS.

Dr. Noyes exhibited some antiquated surgical appliances which had been brought to light in his office as one of the indirect consequences of his recent fire. One piece of apparatus which thirty years ago had a certain popularity in New England was the obstetrical harness. This was so contrived as to afford support to the patient's back, and was supposed to favor the engaging of the fœtal head in the superior strait, from the position it compelled the woman to assume. The doctor put on the harness himself to illustrate the *modus operandi*, but he explained that in his own practice it did not seem to find especial favor.

Another curiosity was a Jarvis' adjuster, an appliance for reducing dislocations. It came into use about thirty-five years ago, but the, powerful leverage it affords makes it a dangerous piece of apparatus in the hands of any but a skilled surgeon, and such have little use for it.

PREVAILING DISEASES.

Dr. Cleland: I still see some scarlatina. I have now four or five cases, mild. I find a great deal of sore throat, which is principally of the follicular variety. I have not seen any true diphtheria. The fever is not so high in these cases as in diphtheria; there is not as much pain. The patches of exudate are more distinct and of a whiter color.

Dr. Gilbert: Can you tell by the prodromata what the disease will be?

Dr. Cleland: I think I can.

Dr. Petershausen: I have also found sore throats very prevalent. They are called by some diphtheria.

Dr. Carstens: I have had some diphtheria and scarlet fever; also rheumatism and malaria.

Dr. Gilbert: As to these cases of diphtheria, I have been often in doubt in regard to the diagnosis. I should be disposed to lay stress on the purple redness of the throat, and the peculiar creamy deposit, as diagnostic of diphtheria. I am sure that many cases are reported as diphtheria which are not so. My plan is to use all precautions in doubtful cases, but not to pronounce them diphtheria unless the evidence is conclusive.

Dr. Cleland: These sore throats run through families as though they were truly contagious.

Dr. Carstens: I confess that I cannot always be sure of my diagnosis in a case of sore throat. A deposit will be present, but it is impossible to tell what will come of it, except by watching the case.

Dr. Noyes: I believe that the diagnosis of diphtheria is often difficult. One is often aided in forming an opinion by the prevalence or non-prevalence of the disease in the neighborhood. The deposit in false diphtheria is superficial and easily removed. The genuine diphtheritic deposit forms a part of the substance apparently of the mucous membrane, so that it bleeds if this is torn off, and it has also a characteristic offensive odor.

Dr. Hawes: Is not sulphur considered a prophylactic against diphtheria? I once heard a paper read before a homœopathic medical association, in which the physician (?) stated that he had formerly used sulphur by insufflation in diphtheria, with good results, but that of late he had abandoned it, and was curing his patients with bitches' milk in the 200,000th dilution!

Dr. Connor: The homœopaths are returning to the disgusting medicaments of the dark ages, or rather they are outdoing the ancients in adopting into the materia medica everything repulsive and abominable that can be conceived of. They now advertise syphillin, leucorrhœin, gonorrhœin, and I know not what other revolting medicaments.

Dr. Wyman: I have lately had a case of inflammation of the hip joint. The patient, a lad, had severe pain in the calf of the leg and in the thigh, but the nature of the case was not apparent. On calling the next day I found adduction of the foot and easily made a diagnosis. I tried to relieve the patient by extension, but failed. Then put him on an inclined plane with adducted limb and he is comparatively easy. I hope for recovery without suppuration.

Dr. Gilbert related a case of a man narcotized by a hypodermic injection of morphine. The pupils were dilated, the patient semiconscious, but occasionally aroused. It is not a good practice to allow patients to administer morphine hypodermically themselves. Several cases have come to my knowledge in which a confirmed morphine habit has been acquired in this way.

Adjourned.

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Proceedings of the Wayne County Medical Society.

DETROIT, March 3, 1883.

The Wayne County Medical Society convened at its rooms in Detroit with the President, Dr. Brodie, in the chair.

Vice-President Dr. Richards having been called to the chair, Dr. Brodie read the subjoined paper on

DIPHTHERIA; ITS CAUSE AND CONTAGIOUSNESS.

GENTLEMEN OF THE WAYNE COUNTY MEDICAL SOCIETY:—I desire to introduce for your consideration this evening the disease known as diphtheria. I do not deem it necessary to go back to the time of its nativity and recite its history from then (1859) to the present, as I take it for granted you know all about it; nor do I propose to refer to the works written upon the subject as authority of what I have to say.

Suffice it to say that this disease has been existing in our city for the last three or four months, and producing more or less anxiety in the families of the citizens. That this anxiety should exist is very natural, from the fact that a genuine case of this disease rarely recovers and the fact that it is generally held to be contagious.

At the present day two theories exist in reference to this disease, viz., by some that it is a local disease in its origin, and by others that it is a dyscrasia in which the blood and nervous system is primarily involved, and according as these views are entertained the treatment must necessarily follow. Herein lies the point of interest, and in our opinion the results of treatment must depend upon the decision taken. We can readily see that when the physician is called to see a little sufferer (for this disease is usually confined to children below 12 or 15 years of age) with difficult deglutition, a swollen appearance of the face, a reddish tinge to the cheeks, the pulse over 100, and the temperature near the same, or more, also to learn that the child has not been quite well for the past week, although going to school regularly, that this morning there was more lassitude than usual and a complaint that the throat was sore; upon examination he finds the pharynx with its contents red and swollen, and upon the lateral surfaces of one or both tonsils a small patch, say the size of a finger nail, of a white appearance that cannot readily be detached, his diagnosis must naturally be that of diphtheria, and especially if such a condition be prevalent in the locality. What more natural then that he should look upon it as a local disease, especially as he finds that within a day or two the exudation rapidly spreads, covering the whole pharyngeal membrane, extending into the Eustachean tubes, traveling upward into the posterior nares and showing itself at the nasal orifices. As the exudation cannot extend outward farther, it proceeds to travel downwards into the larynx, down the trachea into the bronchial tubes. With the idea of its local origin, what more natural then that the treatment should be local also, the various application of powders, lotions, medicated sprays, hot or cold baths to the parts, depending upon the temperature, poltices, etc., externally.

The disease, however, rapidly progresses and the little patient dies. The treatment has proved inavailable to arrest its progress.

Let us take up the theory that the disease is not a local one; that there exist first a dyscrasia (which is the fact), a loss of nervous power; that there is an endemic or epidemic influence abroad; there is a low state of the barometer, a dwindling of the summer into the autumn and the autumn into winter, with scarcely any frost, but a damp, raw, eastern wind, neither cold enough to require winter garments, nor yet warm enough to continue the summer. At the same time there is a non-natural electrical condition of the atmosphere, amounting to so much as to be manifested to the senses and the practical disturbance of the various apparatuses which depend upon that element for their practical uses. What then can be the condition of the system of a child under such circumstances? Necessarily one of debility, ready to receive the impression that determines the result; at one time it might be typhoid fever, erysipelas, or that class of diseases now prevailing —scarlet fever or diphtheria.

We do not believe diphtheria to be a local disease, but we do believe it to be a systemic one. It belongs to the zymotic class of diseases, all of which have a nidus or seat either in the blood or nervous systems of organic life; at least the impression is thus made, and the result is a constitutional dyscrasia; the manifestation being governed by the prevailing atmospheric influence. It is all very well to segregate individuals or families affected with this disease, but doing so does not suppress it. Smallpox by this method may and can be stamped out, but who can certify that scarlet fever, measles, and diphtheria can be so effaced as to be harmless? They cannnot be fenced in and never have been. So long as the barometrical and thermometrical condition of the atmosphere is in that state that its effects upon the human body produce either diphtheria, scarlet fever, or measles, just so long will these diseases exist, and no longer.

Its communicability to others from special contact, is possible, but in our opinion not very probable. We know of instances cited in support of that view, but we believe there has been a previous preparation of the system for its reception.

Seeds may be in the ground for years without germination, but expose them to atmospheric influences in a soil especially cultivated, and germination will at once take place. Coition may take place between animals of the same kind, and be complete in its action, but every physician knows that it does not always result in fecundation, and why (and laying aside inventions of the human mind to prevent it)? Because either there is not proper stability of the male semen, or that the female organs are not in a condition susceptible of impregnation.

When that condition of the atmosphere can be learned that produces diphtheria, and that condition at once changed by science, then can diphtheria be cut short and removed, and on the same basis scarlet fever and measles. To such an end should scientific experiments be directed.

It is all very well to charge the disease to a bacilli diphtheritici (and what disease has not its special bacillus?). This little animal or vegetable can without doubt be discovered, but alas! it cannot be annihilated. Heat and cold make no impression upon it, and it is a question whether fire or the strongest mineral acids can even do so. It would not surprise me to learn that in the ashes of cremation bacilli were found.

The treatment of diphtheria must depend upon which theory the physician takes, and by that theory will he be governed in the selection of his remedial agents.

Dr. Snow: Atmospheric influences probably have much to do in the development of diphtheria. He saw the first case of diphtheria, which occurred in this county about twenty-three years ago. The case being peculiar and serious the late Dr. Brown, of Detroit, was called in council. The exudate on the tonsils became black, and the patient died. There was no other case in this family which consisted of six persons. The second case was about nine miles from the first with no known communication. Nitric acid was applied locally, the patient lingered a while, and died as the first. Quite a number of similar cases were observed but no indication of contagiousness could be traced.

About three years after these cases occurred, diphtheria and scarlatina prevailed together. The throat difficulty was greater, the exudate was less firm, and had a marked tendency to spread. These cases seemed to be quite contagious.

During the winter he had seen a marked illustration of the contagiousness of diphtheria associated with scarlatina. The disease was contracted in Detroit and extended to four other families by visiting the sick. He has also seen a case of diphtheria in a family where from the secluded habits, there was no possibility of contagion. There is considerable difference in the exudate and symptoms in the pure and the complicated disease.

As health officer, he has watched these cases for a number of years. Diphtheria associated with scarlet fever is contagious but when not thus associated it is not.

Dr. Lundy: The fatality of diphtheria has been very much over-estimated by the people who seem to think that comparatively few recover. He believes that from one-half to two-thirds of these patients recover—quite a number with little or no treatment. He has seen patients with considerable exudate in the nostrils get well. He does not know that the disease is contagious but it may possibly be communicated by direct contact of the exudate.

Dr. Goodwin: The fatality from diphtheria depends very much upon the extension of the exudate into the larynx. Its contagiousness is not very evident. He saw one case which occurred five days after visiting a person sick of diphtheria but generally such coincidences cannot be traced.

Dr. Rouse: The number of cases of diphtheria seem to have been materially modified by atmosphere influences. When the weather has been favorable to the development of catarrh or common colds, diphtheria has been more prevalent and seems to have affected adults and children in about relative proportions. Comparatively few have died and most of these vesicular pneumonia due to the extension of the disease to the lungs. Deaths from diphtheria during this winter have been relatively rather more frequent than for several years previously.

After carefully observing a large number of cases of diphtheria in Detroit for some years past I fail to find reliable indications of contagiousness. It frequently affects but one in a large family, and young and old have visited the sick with impunity—a circumstance rather remarkable with contagious diseases. It is quite possible the disease might be induced by the application of the exudate to a denuded surface.

Dr. Wyman: Has any member any information in regard to the views of the health officer and the board of health in regard to the contagiousness of diphtheria? The present season has afforded the health department ample opportunity for investigating the cause of this disease. Dr. Wyman does not regard the disease as contagious.

Dr. Rouse: I presume the health officer is a firm believer in the contagiousness of diphtheria, and yet some time ago he was credited with stating that the prevalence of this disease in the eastern part of the city was due to the Bloody Run—the remains of an ancient stream.

Dr. Richards: The health officer places very little dependence in the reports of diphtheria filed in his office.

Dr. Devendorf: Is a firm believer in the contagiousness of diphtheria. He has seen too many striking illustrations to doubt.

The president: The disease developed at any given time depends very much upon the dyscrasia of the person at that time. Patients are not likely to die of diphtheria in twenty-four hours. In these cases of sudden death the disease has prevailed, unobserved, for some time and thoroughly poisoned the system.

Dr. Snow: The great difference in the views of physicians in regard to this disease is probably due to the association or non-association of scarlatina.

Dr. Klein: What relation is there between malignant scarlet fever and malignant diphtheria?

On motion of Dr. Klein a vote of thanks was tendered Dr. Brodie for his interesting paper.

Dr. Rouse presented a portion of an umbillical cord containing two knots. Specimens of this kind are comparatively rare and considerable difference of opinion prevails in regard to the results of these knots on the fœtus. So long as the knot does not interfere with the circulation of the blood through the cord no harm can result. When the cord is short, naturally or from being folded about some portion of the child, the death of the fœtus is very liable to result from traction during parturition.

W. H. Rouse, M. D., Ph. C.,
Secretary.

Correspondence.

Swinburne on Colles' Fracture.

Albany, April 3, 1883.

Dear Sir:—Dr. John Swinburne has had his attention called to certain statements occurring in the April number of the Detroit Lancet, page 456, which he deems so remarkable that he wishes me to write and deny them *in toto*.

Dr. Swinburne's experience has demonstrated beyond the shadow of a doubt that a perfect result from the treatment of Colles' fracture should be the rule rather than the exception. Notwithstanding that Dr. Frank Hamilton lays down that from 60 to 70 per cent. of the results are imperfect, the former insists that over 90 per cent. should be perfect. Extension properly applied will reduce the deformity and give a good useful arm.

Dr. Swinburne's method of treating Colles' fracture may be found in the proceedings of the Medical Society of the State of New York for 1861. It may also be found in the Philadelphia *Medical and Surgical Reporter* for (I believe) the same year, or in Gross' System of Surgery. The doctor would also call attention to the fact that during the four years existence of his dispensary he has treated perhaps four hundred cases of this fracture with uniformly good results, and he says that if "it is an accident to obtain good results in treating Colles' fractures," he must have met with about that number of accidents.

Hoping that you will call the attention of your readers to this subject to the end that they may learn to treat their cases of Colles' and other fractures scientifically, that "accidents" may be more frequent and that such disgraceful confessions of incompetence may be less common occurrences, I remain,

Respectfully,
Russel C. Paris.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

Dr. Austin Flint on the Ethics of Consultations.

In a series of articles published in the New York *Medical Journal*, Dr. Flint is discussing the entire code. The following is the portion relating to the persons with whom the code regards consultations proper:

Art. IV.—*Of the Duties of Physicians in Regard to Consultations.*

Section 1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

The foregoing section has of late been the subject of much discussion. Of the entire code this section alone has occasioned dissension. The writer of these remarks is one of many who think that the code is here open to objection, not, however, in spirit or intent, but in phraseology. The last sentence is the part concerning which an objection may fairly be raised. At the time when the code was adopted by the American Medical Association, the irregular practitioners, so-called, were, for the most part, uneducated men, whose practice was not only based on an exclusive dogma, but, professedly, to the "rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry." They were "steam doctors, or Thomsonians," "botanical or herb doctors," "eclectics," and the like. A system of practice based on the dogmas of Hahnemann had not then acquired a hold on popular favor. A considerable number of those who became homœopathic practitioners, as they are termed, were from the ranks of the medical profession, and had received a regular medical education. Since the adoption of the code, this system has obtained a legal recognition. It has its societies, colleges, and journals. The homœopathic practitioners are an organized class, distinct from the regular profession. They are candidates for practice on the ground of a radical distinction in their therapeutical system, and it is on this ground that patients elect their services. Meanwhile, other systems in antagonism to the regular profession are comparatively insignificant as regards the number of practitioners and of patients.

It is fair to conclude that the framers of the code had no feeling of illiberality, and no intention to interfere with the practice of medicine, under any circumstances, in the cause of humanity. The code declares explicitly that "in consultations the good of the patient is the sole object in view," and enjoins against declining consultations on the score of fastidiousness. The restrictions of the code are in no wise inconsistent with the demands of humanity in cases of emergency. In saying that certain practitioners are not to be considered as regular or fit associates in consultation, it is neither said nor implied that a physician should not see a patient even with these practitioners when humanity requires him to do so. The tenor and spirit of the code throughout are opposed to any act of professional inhumanity. Moreover, in particular cases, the physician must be the judge of his duty in this regard. Practically, there need be no difficulty in deciding how to obey the dictates of humanity, and, at the same time, conform to the code, under the guidance of a conscientious regard for both. The objectionable point in the code is that which makes "a practice based on an exclusive dogma" the ground of a refusal to meet practitioners in consultation. This is not a valid objection. Any physician has a right either to originate or adopt an exclusive dogma, however irrational or absurd it may be. Dogmas have prevailed more or less in the past history of medicine. If in a consultation there be lack of agreement respecting either diagnosis or treatment, the code indicates in another article precisely the course to be pursued. The true ground for refusing fellowship in consultations, as in other respects, is a name and an organization distinct from and opposed to the medical profession. Whenever practitioners assume a distinctive appellation, thereby assuming to represent an essentially distinct system of practice, taking an attitude of antagonism to the regular profession, seeking popular favor on the ground that they belong to a "new school" based on truth and productive of good, whereas the regular profession belong to an "old school" based on error and productive of harm—how can there be fellowship either in consultations or in other respects? If they who thus assume an attitude of antagonism to the medical profession conscientiously hold to the distinctive tenets which, as they profess, are the ground of their antagonism, how can they consistently desire to meet members of the latter in consultation, and, with opposing views of therapeutics, how could such consultations accomplish "the sole object in view," namely, "the good of the patient?" If, as is asserted, homœopathy has practically been abandoned by most of those who practice under this name, or so modified that the modes of treatment in cases of disease are not essentially different from those of the regular profession, why retain the separate organization and the name, which imply to the public a radical therapeutic distinction? If the assertion be true, the name and the organization being retained, professional fellowship is rendered thereby immoral on the ground of complicity in a fraud upon the public. It is to be hoped that the body from which the code emanated—namely, the American Medical Association—will adopt such modifications in the phraseology of this section as will place restrictions on consultation, not on the ground of doctrines or forms of belief, but on separation from and avowed antagonism to the medical profession. Under no circumstances can there consistently be fellowship with any class of practitioners who adopt a distinctive title as a trade-mark, and who are banded in order to impair the confidence of the public in the medical profession.* To take the ground

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* The action of the British Medical Association is in accordance with this view. The two following resolutions are quoted from a series adopted by that body:

"*Resolved*, That homœopathic practitioners, through the press, the platform, and the pulpit, have endeavored to heap that, because the legislature of a state has placed on an equal legal footing different classes of practitioners, those of one class can not refuse to consult with those of another class, is as absurd as to assert that a Jewish rabbi is bound to exchange pulpits with Christian ministers, or the latter to affiliate with Mormon elders for the reason that, in the eye of the law, in this country, all religious denominations have equal rights. The people demand of their legislators the enactment of laws for the protection of life, liberty, and property, but they do not look to them for the institution or the interpretation of codes of ethics. If homœopathic practitioners abandon the organization and the name, provided they have received a "regular medical education," there need be no restrictions on consultations other than those belonging to other portions of the code, whatever therapeutical doctrines they may hold.

There are many, not of the medical profession, who have been led to believe that its members are bound to uphold antiquated traditional doctrines. Many seem to think that the "old-school practitioners," as they are derisively called, are committed to a system of practice expressed by the term allopathy. All medical men know that, so far from these popular notions being true, they are quite the reverse of truth. The term allopathy originated with Hahnemann, and was intended to denote a doctrine the opposite to homœopathy. It is simply a term of reproach. It has no pertinency as applied to the medical profession. As is well known by all conversant with the history of medicine, doctrines and practice undergo changes in proportion to the advancement in the several branches of medical knowledge and accumulated experience. The tendency, certainly, within the last half century has been to adopt new views too readily, not heeding sufficiently the restraint of a rational conservatism. It is desirable that the public should understand that the medical profession is in no sense a sect, as implied by the name allopathy. It allows the utmost latitude of opinion. The sectarians in medicine are those who have professed faith in tenets to which they are bound, at least ostensibly, to adhere. Opinions held by members of the regular profession, however at variance with those generally entertained, and however absurd, may fairly give rise to criticism and ridicule, but they can not be made occasions for professional discipline. With a proper understanding of the reasons which actuate members of the medical profession in declining to meet irregular practitioners, their action can not be attributed to either jealousy or prejudice. Their action, indeed, may involve the sacrifice of personal interests, and it concerns the public welfare not less than the dignity and honor of the profession. Let the statement be repeated, until no longer necessary for the information of the public, that there are no allopathic practitioners of medicine. A regular member of the medical profession should never even tacitly admit the propriety of this designation. Let it be understood by the public, as well as by the profession, that there is no necessity for a schismatic separation from the regular profession on account of any peculiarity of doctrine. Such a separation is not from necessity, but for the purpose of obtaining practice. That it is successful for that end, observation shows. Why it is so is a question in psychology, the discussion of which would be out of place here.

A Practical Discussion of Medical Ethics.

From time to time we have directed attention to the moves being made by the profession of New York against and for medical ethics as formulated by the American Medical Association. The latest moves have been the election by the old code men of three delegates from the New York county society to represent them at the annual gathering. As these displaced three new or no code men, it cannot be said longer that the New York City delegation is solid for new or no code. But they have not stopped here. Seeing the earnestness with which the new code men were operating, they have awakened to the situation. Had they done so a year ago, there is no doubt but things would have been quite different to-day. But, doubtless, most thought that the change meant but little and

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contempt upon the practice of medicine and surgery, as followed by members of this association, and by the profession at large.

"*Resolved*, That for these reasons it is derogatory to the honor of members of this association to hold any kind of professional intercourse with homœopathic practitioners."—*Vide British Medical Journal*, June 10, 1882.

In these resolutions the repudiation of homœopathic practitioners is based on their attitude toward the practice of medicine as followed by the profession at large, and not on the dogmas which they profess, although in another resolution the latter are characterized as "utterly opposed to science and common sense, as well as completely at variance with the experience of the medical profession." Another resolution is, "That there are three classes of practitioners who ought not to be members of this association [British Medical]: 1. Real homœopathic practitioners. 2. Those who practice homœopathy in combination with other systems of treatment. 3. Those who, under various pretences meet in consultation, or hold professional intercourse with those who practice homœopathy."

was not worth bothering with. Their opponents thought that it was worth the bother, and so they marshalled their full forces and held the fort. But we observe that the old code men have begun to organize. Over 400 signatures have been obtained to a document that binds the subscribers to vote and labor for the re-enactment by the state society of the Code of the American Medical Association, and against any effort to change that code, except in the body where it originated.

Meantime the no code men have been circulating another pledge to an exactly opposite course. Thus it seems inevitable that soon we will have the mass of the profession in New York divided into two solid opposing bodies.

Thus we are likely to have a discussion by acts even more than by words, though words are not likely to be wanting.

The position of the new or no code men is, that the laws of the State of New York do not make any distinction between doctors, and that, therefore, a society formed under these laws should not make any difference. Hence they demand the right to consult with whoever they please, if only the State of New York has recognized them as physicians.

The position of the old code men is simply that, as a member of the American Medical Association, the Medical Society of the State of New York should not make any changes in the code of ethics that governs the entire profession without starting the change in the American Medical Association itself. In short, the old code men claim that it is best to work for ethical changes through the American Medical Association, while the new code men think they are of more importance in the State of New York than the entire profession of all the other states, and so should lead the way for the American Medical Association to reform its ways.

We are struck with one thing: The movers in the new code are almost without exception men who are rarely if ever seen at the meetings of the association. The editors of the medical journals who support the new code movement are rarely seen at meetings of the American Medical Association. It follows from this that they have had neither interest in the association, its aims and work, sufficient to become familiar with its real character. Hence, in so far as is apparent from the names of the individuals, those ignorant of the real workings of the association are opposed to its code of ethics. These same individuals, in so far as they live in New York, generally attend the state society. They know this society and are ready to exalt it to the highest place in the land. This would not probably be objected to did it not at the same time itself descend to the level of the politician in arranging its associates. In short, the new code men have seceded from the American Medical Association and are endeavoring to keep their professional brethren from regular affiliation with the national association. They are all strong state rights men. Soon, they announce, they will be individual rights men, each for himself, free to walk in his own sweet way, if only he calls that way that of a "gentleman." Those who believe that the profession should regulate its own associations in a purely professional aspect, are now awaking to the fact that a conflict is inevitable. The facts already given, as they have appeared in the daily press, indicate that practically the war has begun. The no code men began the conflict and perhaps they will end it, or perhaps not.

The Reputation of the American Medical Profession as Drawn by Dr. O. W. Wight, Health Officer of the City of Detroit.

The following quotation is from the *Medical Times and Gazette* of London, England. It exhibits in a very clear light the influence of the author's writings in damaging the reputation of the American medical profession:

"*An American Physician on the Medical Profession of America:*—Dr. O. W. Wight, a distinguished member of the medical and legal profession. and a leading medical jurist in New York, in a paper on expert testimony says: In this country we have no legitimate medical profession. Learned, able and conscientious physicians and surgeons we have, but they are a melancholy minority in the great frothy ocean of practitioners. In the United States there are nearly a hundred medical colleges, a majority of which are only chartered doctor factories. To them flock every year green young men, many of whom could not write a sentence of correct English if the salvation of their souls depended upon the effort, who obtain certificates of study from easy-going practitioners, listen to miscellaneous lectures for twice fourteen weeks, and are graduated as doctors. The schools compete with one another for students by the ease with which they induce them into the learned profession. And this is not the worst of it. In most states an enterprising fellow who fails as a minister, a lecturer on phrenology, school master or tin peddler, is allowed (without any diploma) to put out his 'shingle' as a doctor, and he is pretty sure to get fools to employ him, for he has cheek, brass, push, pretension, and the audacity of ignorance. From such a heterogeneous crowd—parties in litigation find experts to testify to anything they desire."

In reproducing the above the Louisville *Medical News* remarks: "We give this simply as an illustration of what inexcusable ignorance can accomplish, and how the unscrupulous may perpetrate slanderous injustice upon reputable institutions. Such statements are either the result of gross ignorance or slanderous designs."

Whether the author of the above statements was guilty of the ignorance or slander, each reader can decide for himself. But there are some corrections to be made in the. remarks at the beginning of the *Times and Gazette's* article. First, Dr. Wight is not a "leading medical jurist of New York." He is health officer of the city of Detroit. Respecting his position as a "distinguished member of the medical and legal professions" we can only say that the most remarkable thing about his relations to these professions while he has lived in Detroit has been his capacity to disturb the harmonious relations between the medical profession and the sanitary authorities. For his capacity to sit in judgment upon the medical profession we have his past record. From authority that seems good we learn that Dr. Wight has been clergyman, doctor, newspaper man, lawyer and health officer.

Our sole interest in this matter is to place in their true light these damaging reflections upon the American medical profession and American medical colleges and American medical education. Is the past record of the author of these reflections such as to give weight to his statements in this regard?

He says: "In this country we have no legitimate medical profession." We take direct issue with this statement and claim for America a medical profession as legitimate as is to be found in any land. The same holds true with reference to its medical schools, etc. With all our shortcomings we are not outranked anywhere when considered all and all.

In the interests of truth we have been compelled to state that Dr. Wight is a resident of Detroit at present. But truth also compels us to add that he has been such less than two years, so that he in no sense derived his peculiar notions from a long residence in our city.

Does the Theatre Promote Public Health?

The theatre is one of the oldest institutions of civilization. From time to time its advantages to the well being of the people have been questioned. Lately the *Medical Record* has directed attention to it. In 1856, M. Bonnaire, of Paris, wrote a very forcible and elaborate essay upon the subject, denouncing most severely the whole institution. Playhouses, excepting the opera, he regarded as little better than pest-houses.

The *Record* believes that the influence of theatre going upon the young and immature is most positively bad; that to a nervous system, unformed and unstable, the excitement of the melo-drama or tragedy, the late hours, the precocious ideas, the distorted and often false ideas of life and character portrayed, all exert an injurious influence upon both mind and body. Among the better classes are a great number of silly stage-struck girls, whose already unstable nervous system is made more so by theater-going. Occasionally these become affected with a passion for a particular artist, which develops into an epidemic. Sometimes this epidemic takes on forms that liken it to the dancing epidemics of the middle ages. That this sort of excitement may develop disorders of the body, may be admitted; in fact many such have come to our notice, and large numbers have been reported by those observers whose attention has been directed to the subject, and who see many of such cases.

Of the lower grade of theatres, which deliberately stimulate the worst appetites of both man and woman, we do not speak. There can be no doubt but these operate disastrously upon the physical health of all concerned, young or old.

But concerning the best theatres of the present day, there is still an inherent objection. All will admit that the irritation of the sensitive nerves simply for the purpose of the disturbance of the nervous system called pleasure which results can operate only for the disturbance of the balance of the sensitive and motor elements of the central system. Thus continued tickling has caused nervous disorders and even death. Now the sole obfect of the theatre is to bring into activity certain groups of nerve cells. It has no relation to rational activities of the motor nerve cells. A scene of distress in the street excites the sensitive nerve cells, but this excitement is at once transferred to the motor nerve cells, and the individual renders the excitement positively beneficial by efforts to relieve the suffering. Thus in actual life the irritation of scenes of sorrow, or joy, or crime, or want, or weakness, is spent upon the motor tract, and through some muscular activity tries to relieve the sorrow by weeping with those who weep and rejoicing with those who rejoice. The general physiological principle violated is that excitation of sensitive nerves is corrected or rendered harmless only by motor activity. No doubt, since the human organism is so constructed as to bear much abuse without palpable harm, many suffer no appreciable damage from theatrical attendance. But after a time it will tell upon any person in ways unmistakable.

The whole matter is worthy of more careful attention than has hitherto been given it.

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Convallaria Majalis in Heart Disease.

Recently efforts have been made to give this remedy the place of digitalis as a diuretic and remedy for certain forms of heart disease.

It is an old remedy. Culpepper regarded it as a valuable remedy for weak memory, lost speech and apoplexy. Gerarde recommended it for gout. For long years the peasants of eastern Europe have valued it in cases of dropsy. In 1880 Drs. Troitskya and Bogojavlensky, two Russian physicians, on investigating its action, said that it was valuable in certain forms of heart disease. Prof. Botkin, of St. Petersburg, confirmed most of these results. In July, 1882, Prof. Germain Sée published the results of his experiments. (Bull. Gen. Ther. Brit. Med. Jour.)

In 1858 Walz isolated two glucosides, which he named "convallarin" and "convallamarin." The investigation of their chemical and physiological properties by Tanret and Marme soon followed. It was found that convallarin possesses purgative properties only, while convallamarin is a heart poison allied to digitalis, helleborin, etc. The preparations usually employed are the aqueous extract of the leaves, an aqueous extract of the flowers and the extract of the entire plant. The last is the best for the obtaining of the full therapeutic effect.

A drop of the extract of the flowers injected under the skin of a frog arrests its heart in systole, very much as digitalis and some other remedies do. Four drops of this injected into the vein of a dog caused death in ten minutes. The heart appears to be first slowed, and the respirations are quickened. Then the heart's action becomes irregular and the pulsations weak and very rapid. The blood pressure first rises and then falls. The respirations gradually diminish. The heart stops first, then the pressure falls to zero, and the respiratory movements stop. The excitability of the pneumogastric is weakened, although not abolished.

Prof. Sée reports five cases of mitral insufficiency characterized by want of rhythm, œdema of the lower extremities, dyspnœa, etc. The doses of the extract given were from seven to fifteen grains daily. In each case there was marked improvement; the heart's action becoming stronger, the breathing better and an increase in the amount of urine passed.

A case with mitral stenosis was also benefited; so also several cases of aortic insufficiency.

Thus it appears that the favorable effects of this drug upon the heart and blood vessels are constant and reliable.

Favorable reports have been made as to its practical value, in cases of palpitation from exhaustion of the pneumogastrics, in simple cardiac erythema with or without hypertrophy and with or without valvular lesions, in dilatation of the heart, etc.

Some observers have failed to get any appreciable effect from this drug. But it would seem from the mass of favorable evidence adduced that they must have either had a poor article, or failed to use it in appropriate doses.

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The Value of Koch's Researches.

The value of these researches have been and will be variously estimated by different classes of minds.

Among those who have called them in question and who are competent to criticise them are Schmidt of New Orleans and Formad of Philadelphia. In the old world many scientists have questioned them. Lately a new opponent has sprung up. It is Dr. Spina, of Vienna, an assistant of Striker. He claims that many of Koch's experiments are incomplete and erroneous, and hence his conclusions unwarranted. He claims that the bacilli of Koch possess no characteristics which can separate them from the bacteria of putrefaction. Nor is it shown that all of Koch's bacilli are of the same character. Nor are they constant in tubercular masses, and their extent does not correspond to the extent of the disease.

Further, he complains of the characters of Koch's inoculation experiments and denies his assertion that the turbercle bacilli only multiply at a temperature of mammals. These facts quoted from the *Medical News*, may or may not prove to be well founded, and so may or may not be worthy of credence. We give them simply to indicate that the matter is by no means settled as yet and non-experts had better wait till more positive evidence presents before settling their minds upon any definite views of the matter. The value of these researches, be it little or great, does not yet appear. Nothing of a practical nature is made manifest by them admitting their truth that we did not have before upon undoubted evidence.

Medical Laws and Quacks.

There are very many physicians who honestly believe that the tone of the medical profession can be improved by medical legislation. Canada is often quoted as an example of the beneficent effects of such legislation. For ourselves we have never seen any good from the Canada Medical Acts. In fact in very many ways we think it has done harm. But our object is not at this time to argue this point. We desire simply to present a view of the facts as given by the representative medical journal of Canada. In its issue for March, 1883, the *Canada Medical and Surgical Journal*, says: "We are often asked how it is that in Ontario quacks of all kinds seem to flourish in spite of the penal clauses of the College of Physicians and Surgeons. The papers teem with advertisements of institutes of various kinds and Medical and Surgical Associations, many of them with headquarters in the States, and travelling agents in this country. The reason is that the organizers and proprietors of these establishments have either themselves come "within the fold" by qualifying before the council, or have duly qualified assistants. The notorious K. and K., of Detroit, have a special staff for Ontario, and take good care to send only those whose names are on the register. They get men easily enough; the profession is not without members "so base and full of wretchedness" that their poverty, when not their wills, make them consent to be participators in these concerns. In short no law and no education can make an honest honorable physician. An educated man may in any place obey the strictest law and yet be the worst of quacks.

A Tribute of Honor to Dr. O. W. Holmes, by the Medical Profession of New York, etc.

On the evening of April 12th, a banquet in honor of Dr. O. W. Holmes was given by the profession of New York, at Delmonico's. About two hundred and twenty-five persons were present, and responses were made to toasts by Hon. Wm. M. Evarts, George William Curtis, Bishop Clark, of Rhode Island, Dr. T. Gaillard Thomas, Whitelaw Reid, etc. Dr. Fordyce Baker presided, and Dr. A. H. Smith completed Dr. Baker's greeting with a humorous poem. Dr. Holmes responded with a poem, exhibiting all his old time fires. It was a delightful occasion, not only to the participants in it but also to the medical profession at large, and to that larger body of educated men of all professions and arts, which claims every skillful honest worker in any field of thought as its own.

The closing stanza of Dr. Holmes' poem is as follows:

"How can I tell, O my loving friends,
What light, what warmth your joyous welcome lends
To life's late hour? Alas! my song is sung,
Its fading accents falter on my tongue.
Sweet friends, if shrinking in the banquet's blaze,
Your blushing guest must face the breath of praise,
Speak not too well of one who scarce will know
Himself transfigured in its roseate glow;
Say kindly of him what is, chiefly, true,
Remember always he belongs to you;
Deal with him as a truant, if you will,
But claim him, keep him, call him brother still."

The Secular Press Alarmed at the Prospects of the Results of the Adoption of the New Code in New York.

The New York *Semi-Weekly Tribune*, April 17th, has the following: "The differences between the doctors in this city in regard to the code of medical ethics have reached a painful point. Each party is well organized and is carrying a vigorous war into the country districts. It is intimated that our medical colleges are involved. This is bad. The members of the medical profession of New York rank all the other doctors in the country for intelligence and skill. Our medical schools are unrivaled. Is it not plain that strife can only result in injuring the renown of these institutions and the reputations (not to mention the practice) of our physicians?" Amen. But who started the conflict? Clearly the new code men have the satisfaction of knowing that they have made all this trouble and are the authors of whatever may result. When outsiders see so plainly the evils of such contests, it is time for these agitators to pause and consider the situation. They could stop the contest at once by simply returning to their old position. Then if they desired the reforms they are seeking, they could begin the same in the American Medical Association. Should they succeed in converting this body to their views, then all the rest would naturally follow.

A Lucky Doctor.

It is not every physician who can get a verdict of $20,000 against a newspaper which publishes material that is injurious to him. But such a verdict has been obtained by Dr. Donald Maclean, professor of surgery in the University of Michigan, against the Detroit *Evening News*. The libel for which the verdict was given consisted in the *News* publishing grave charges against the professor's chastity, the authority for the publication being uncontradicted published details of the same that had appeared in several Canada papers. We could wish that Dr. Maclean had the money and further law suits not possible. But such is not likely to be the case. In fact, at date of writing it is impossible to tell how the matter will end. In the interests not only of the doctor, but of the university and of the medical profession, it is most earnestly to be hoped that further trials will show the utter falseness of the charges.

The Eighteenth Annual Meeting of the Michigan State Medical Society.

This will begin its sessions in Kalamazoo, on Wednesday, the 9th day of May. Reduced rates of fare on the railroads, the secretary announces, will be furnished to such as desire to attend the meeting. The physicians of Kalamazoo have made or will make all arrangements needful for the comfort and convenience of the delegates. It is several years since the meeting has been held in this portion of the state. It is hoped that a considerable number of active members may be picked up and added to the working force of the society. Let each reputable physician in the state feel that he has personal responsibility in the development of these meetings and there will be even greater advance in the future than there has been in the past

Memoranda.

Bishop Medical School graduated three students.

Jefferson Medical College graduated 227 students.

The famous instrument maker of Paris, Luer, is dead.

The Minnesota College Hospital graduated four students.

The St. Louis Medical College graduated forty students.

The Albany Medical College graduated fifty students.

The St. Joseph Medical College graduated a class of eight.

McGill Medical School of Montreal, graduated thirty students.

The Montreal School of Medicine graduated thirty-three students.

The Ohio Medical College graduated one hundred and two students.

The Woman's Medical College of Chicago graduated a class of eight.

The personal property of the late Sir Thomas Watson was $820.000.

The Memphis Hospital Medical College graduated a class of thirty two.

The Cincinnati College of Medicine and Surgery graduated a class of fifteen.

The Woman's Medical College of Pennsylvania graduated thirty-five students.

The College of Physicians and Surgeons of Iowa graduated a class of three students.

The Northwestern Medical College at St. Joseph, Mo., graduated eighteen students.

The Medical Department of Vanderbilt University graduated one hundred students.

The Medical Department of the University of Louisville graduated sixty-eight students.

Bellevue Hospital Medical College graduated one hundred and sixty-seven students.

Prof. von Sigmund, the famous syphilographer, died recently at the age of seventy-three.

The Medical Department of the University of Louisiana graduated seventy-four students.

The University Medical College of New York graduated one hundred and sixty-four students.

The Medical Department of the University of Maryland graduated ninety-seven students.

New York has started a college of midwifery in connection with the Metropolitan Dispensary.

The Medical Department of Columbian University of Washington, D. C., graduated a class of ten.

In New Orleans during the week ending March 14th the number of deaths from smallpox was sixty-five.

Dr. E. Lauderdale died in the Eastern Asylum at Pontiac, April 17, 1883. He was a well known army surgeon.

It is announced that two medical journals are to be projected from Buffalo, N. Y. One is to be in German and one in English.

Prof. von Rinecker, of Wurzberg, died recently. He was well known for his writings upon psychiatry, diseases of children, etc.

Professor Giuseppe Rosso, of the University of Genoa, died recently. He had been professor of surgery for over thirty years.

A New York dentist, Dr. John Westbay, has been mulcted of $1,200 for breaking a lady's jaw during the extraction of a tooth.

The *Medical Record* asserts: "At present the majority of state medical transactions are worth little more than the paper upon which they are printed."

Prof. Carl von Hecker, of Munich, died at the age of fifty-four. To the literature of obstetrics and gynæcology he made great and permanent additions.

M. Bischoff, of the University of Munich, is dead. He was well known for his writings upon embryology. At time of death he was seventy-five years old.

Dr. Wm. S. Forbes, Demonstrator of Anatomy in Jefferson Medical College, has been acquitted of the charge of complicity in grave robbing at Lebanon Cemetery.

One million, twenty-nine thousand, nine hundred and fifty-three dollars have been appropriated for the public charities of New York City during the coming year.

During 1882 37,951 persons died in New York City, the ratio being over 29 in a thousand of the population. The average death rate of all the states for 1880 was between 17 and 19 per thousand.

The Chicago College of Physicians and Surgeons graduated a class of fifty-two students at their first annual commencement. Low fees and requirements seem to have been the reason for this prolific brood.

The March issue of *Squibb's Ephemeris* gives a full list of the supporters of the new and old codes in the last meeting of the New York State Society. It also gives a full statement of all the facts in the case.

Dr. T. A. McGraw has been made a member of the Detroit Board of Health in place of Dr. Farrand, and Dr. H. O. Walker has been appointed temporarily surgeon to Harper Hospital in place of the late Dr. Farrand.

To cure a nevus in a child the veteran professor of surgery in a western medical college injected a few drops of the solution of chloride of iron into the tumor. Immediately there was a slight convulsion and the child was dead.

The medical department of the University of Pennsylvania graduated ninety doctors and thirty-six dentists. This university has started an annex for woman like that in Harvard. It has also organized a veterinary school.

The *Sanitarium* of New York says: "Oliver Wendell Holmes says that bad air, bad whisky and irregular habits keep the doctors alive. He must be mistaken. These very things have killed several doctors in this city."

Columbus Medical College diplomas are no longer accepted by the Massachusetts State Medical Society. Graduates of that school desiring to practice medicine in that state will be compelled to pass an examination.

The trituration of three parts of hypophosphite of lime with one part of the hypophosphite of soda was followed by an explosion like gun powder. The fine particles flew with such force in the doctor's eyes that he is likely to lose one of them.

The New York Supreme Court has decided that the United States Medical College was never incorporated as a Medical College. As result of this decision, the graduates of this school have no legal standing. In short they have no diplomas in law.

Dr. S. Weir Mitchell has given $5,000 to the Philadelphia College of Physicians, the income of which is to be devoted to an annual dinner or to other means for promoting sociability among its members. Who better than Dr. Mitchell knows the value of food as a means of curing morbid states.

Brooklyn has brought suit against the city to recover $10,000 damages for the loss of two sons from drinking impure water from a well near his residence. He claims that the city authorities knew of the danger of this well, but neglected to either stop it up or warn the residents of its danger.

Dr. Thaddeus Stevens has been dismissed from the Indiana State Board of Health. He is fighting to retain the place. There is also a quarrel between the superintendent of the Indianapolis Insane Asylum and the physician in charge of the female department. As the trustees sustain the latter there is another fight.

In an address before the Minnesota State Medical Society, Dr. Alex. Stone, says: "That much which the code contains is gratuitous insult to the profession." And yet this same gentleman was delighted to be elected Vice-President of the American Medical Association whose foundation is this same insulting code.

Prof. Wm. Detmold, has resigned the chair of Clinical Surgery in the College of Physicians and Surgeons of New York. For thirty-five years he has held this clinic. All the old graduates will recall his eccentric manner of disposing of his material, and conducting his clinic.

Prof. von Bruns, died recently at the age of seventy. He was a distinguished surgeon celebrated especially for his work in connection with the surgery of the larynx, and with the laryngoscope. He wrote a work on surgery, many papers upon nasal polypi, and a valuable work upon laryngoscopy.

The Australian *Medical Gazette* gives some of the methods employed by the aborigines of central Australia to prevent conception. One mode is to make an opening into the male urethra just anterior to the scrotum; another is to slit up the entire urethra, so as to entirely destroy the urethral canal from the scrotum to the base of the glans penis.

Concerning the second part of Allen's work upon human anatomy, the *Annals of Anatomy and Surgery* says: "Truth compels us to say that the author has failed to write an acceptable work, even the mechanism of the important joints being very imperfectly understood. The illustrations are also poor and some are actually incorrect."

A writer in the New York *Medical Journal* says that in Buffalo, N. Y., there are nine free dispensaries, either under way or starting. Further he says: "Under the pretense of charity the physicians thus seek to advertise their names to the public, and jealousy has caused the dispensary mania to become epidemic, no one wishing to be outdone by another in the scramble for a vast acquaintance."

Dr. William H. Van Buren died March 25th aged sixty-four. His long experience as a teacher in the medical department of the University of New York and in the Bellevue Hospital Medical College, was at once an honor to himself and a profit to his pupils and the medical profession. He is perhaps best remembered by his works upon diseases of the rectum and venereal diseases.

The Lucerne County (Pa.) Medical Society at its March meeting instructed its delegates to the Pennsylvania State Medical Society to oppose the reception by that society of any delegates from the New York State Society; also the sending of any delegates to the same. The reason given for this action was the adoption by the New York Society of the new code, by which the irregulars are placed upon the same footing as the regulars.

Within a few days of each other the wives of Dr. Geo. E. Walton, Dr. James T. Whittaker, and Dr. W. W. Dawson died very suddenly. The deaths of the first and the last were expected in natural course of disease, but Mrs. Whittaker was in perfect health an hour before her death. Our friends have the full sympathy of large numbers of medical as well as other friends in their sudden bereavement.

Alumni Association's annual meeting is thus described by the *Gaillard's Medical Journal:* "Two or more rooms are partly filled, first with men, and filled to suffocation with tobacco smoke, from very questionable cigars. Some report is read; a lot of poor anecdotes is given circulation, a few members are elected, memorial resolutions in behalf of the dead are read, and there is a restaurant dinner, a guzzling of champagne, a few maudlin speeches, and an adjournment for the year."

Dr. D. O. Farrand died Sunday morning, but by the next Monday morning there were many applications for his position upon the police force as its surgeon. We are informed that this so shocked the police commissioners that they determined to appoint none of these who made such unseemly scramble for the place of the man who was scarcely cold in death. It is an indication that Detroit contains lots of hungry doctors, and at present appearances is likely to have lots more.

A correspondent of the *Boston Medical Journal* from Florida writes: "The impression left on the mind of a causal observer is that Florida would be a paradise to the nervous and bronchial New Englander, a happy land where he might escape the rigors of his native spring, where his tired brain and congested larynx might find response, but not the land to which the good physician would send his phthisical friend whose lungs had already become diseased."

It has been claimed that any person can enter the army on merit without reference to time of study, diploma, etc. Assistant surgeon Worthington in the *Medical News*, says that no non-graduate was ever known to be admitted into the regular army. Further, any graduate of a medical college graduated on merit without regard to a period of study would stand a poor chance of passing an Army Medical Board, or even of coming before it for examination if he should be so rash as to apply for an invitation to do so.

The Quarterly Journal of Inebriety makes the following remarks respecting the papers published in the DETROIT LANCET, by Dr. T. L. Wright, on the Power of Alcohol over the Nature of Man. "In many respects they are the most suggestive and original discussions which have appeared on this subject. The range of study is wider and the phenomena of inebriety are seen higher up and from the latest researches of science."

The *Medical Record* is impatient for the publication of the estimates of the yearly cost of the publication of the proposed journal of the American Medical Association, and a definite statement of the encouragement received. It again repeats its call. The chairman of the Board of Trustees will doubtless attend to the matter. At any rate if the editor of the *Record* will attend the coming meeting of the Association at Cleveland he will have a full hearing of all the details.

Brevet Maj.-Gen. Joseph K. Barnes, late surgeon-general of the United States Army, died in Washington, D. C., April 5th, 1883, from Bright's disease. He was about sixty-six years of age. He was appointed assistant surgeon in the army in 1840 and by gradual promotions reached the rank of surgeon-general in 1864. He was retired from active service in 1882. He will be long remembered by not only his official associates but also by the medical profession in general, as the promoter of the famous Medical and Surgical History of the War of the Rebellion.

The *Medical Record* compliments the fairness of the two medical journals outside of New York which support its position respecting the new code. It is delightful to it to observe the candor and fairness of our esteemed contemporaries, the *Medical Age* and the *Weekly Medical Review*. Apparently, it classes the rest of American medical journals among the propagators of "vituperation, of charges of dishonesty, greed, avarice and trickery" against the advocates of the new code. This is quite refreshing, and indicates a sharp discrimination. Of course it is entirely proper for the *Record* to approve of the course of its allies.

Referring to the self-exaltation of the supervising surgeon of the Marine Hospital Service and to his belittling of brother professionals in the navy and elsewhere, the Philadelphia *Medical Times* says: "To the civilian accustomed to the amenities of professional life, it seems very strange that when a doctor becomes a politician he should lose all remembrance of the code under which he drew his first professional breath." The same observation has doubtless been made by most observing physicians. But it is, nevertheless, worth repeating.

The New York *Medical Times*, the leading homœopathic organ of New York, says in language in entire accord with the *Medical Record* and New York *Medical Journal*: "The public are tired of the old H. Kappa Lambda ring (the code of the American Medical Association and its adherents) with its assumed dignity, its overbearing tyranny and its petty spites and jealousies, and the men who have inaugurated this declaration of professional rights and broken through the trammels of caste, have placed themselves in the ranks of progress, and deserve and will receive the commendation of an intelligent public."

The following natural history of crime is given by the *Journal of Inebriety*: "Two hundred years ago or more a noted pirate abandoned the sea and settled in the neighborhood of Boston. A numerous progeny came after him, all more or less criminal and drunken. In the third generation from the pirate there were sixteen inebriates, in the fourth generation in the direct line twenty-six members were punished for various offenses against the law and order, mostly for theft and forgery. In the fifth generation came the notorious Malborne Briggs, who at one time was in state prison with seven of his sons for various offenses. The sixth and seventh generations furnished a scattering crowd of criminals and inebriates, whose records are found in every penal institution of the state. The last representative who turned state's evidence seemed to have no consciousness of right or wrong, or moral responsibility, although possessed of considerable genius."

Dr. Austin Flint, in New York *Medical Journal*, says: "For a physician to keep no account of medical services, relying upon the voluntary contributions of his patients for his support, is not only unseemly, but derogatory to the profession. Medical as well as other services are entitled to compensation whenever they are not charitably bestowed, and it is disreputable to place pecuniary acknowledgements in the light of a gratuity." As an illustration of the value of this principle, even as a matter of policy, he gives the following observation: "A medical friend of the writer whose practice was largely among the affluent, kept no regular books, and sent out no regular bills for fifteen years. The explanation which he gave was that he did not need any income from his practice and was too indifferent thereto to incur the trouble of making out charges and collecting accounts. As a result the greater part of his patients left him, preferring the services of those whose practice was upon a business basis."

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Editor's Book Table.

Tenth Annual Report of the Michigan State Board of Health.*

This volume of over six hundred pages lies before us. If possible it is even better than its predecessors during the nine previous years. Besides the secretary's report of the meetings of the Board, etc., it contains fifty-seven papers and addresses and reports upon sanitary subjects. Forty of these papers were read at the Sanitary conventions held by the board during the year. Of the remaining seventeen articles, nine are by members of Board, and the rest by various parties, most of the work being done in the office of the secretary of the board.

All of these papers have relation to one of two objects, to either collect important sanitary information or to scatter it among the people. The amount of facts here presented for the first time, is very great. True all of them do not give immediately practical results but all will in the future. The means adopted by the board of holding two annual sanitary conventions in different portions of the state in order to interest the people of each special locality in the matters pertaining to their own sanitary condition, have been abundantly successful. Whole communities have been interested in the study of sanitary problems bearing upon their personal health and physical prosperity. It is to be hoped that means may be so placed at the disposal of the board that they may be able to hold not simply two yearly sanitary conventions, but many, in different portions of the state. Only by some such personal teaching will it be possible to so teach the people sanitary science as to make it a practical thing to them. Of course this series of efforts reacts upon the Board of Health itself in that it renders it conversant with the manner in which their work is viewed by the people of the several sections of state visited. Knowing how the people are to be reached they are better able to adapt their effort towards this end.

At divers times we have called attention to very many of the papers contained in this volume, so that it will be useless to notice them again. The facts relative to an outbreak of small-pox at Flint are of great interest as showing the difficulties with which some health officers have to contend, and the damage to health, property and life from the pig headed obstinacy and ignorance of some doctors, etc. A case of small-pox was called chicken-pox by the attending physician. The health officer diagnosed small-pox and insisted that the person should be quarantined. The doctors and people took sides mostly against the health officer. The case was brought to Detroit and shown to two physicians who pronounced it chicken-pox. This evidence increased the power of the chicken-pox people, and of course weakened that of the health officer. But after a little, other cases of small-pox of undoubted character appeared among those who had been about the so-called chicken-pox patient. At last other physicians from outside were summoned, including one of the Detroit physicians who had pronounced the case chicken-pox. One look was sufficient to convince these that it was genuine small-pox, and they so reported. From this time the health officer had his own way, the correctness of his judgment being admitted on all hands. Vigorous measures were taken to care for the sick and to protect the community. As a result the epidemic was gradually stopped. But the cost was great. Forty-four cases appeared in the county, six of which proved fatal. The money expense to the county as a whole was over three thousand dollars. The expense of those able to pay their own bills is not included in this estimate. Nor is included the value of the destroyed furniture, etc., etc. The details are also given of the size and treatment of several other epidemics in other portions of the state.

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*TENTH ANNUAL REPORT OF THE MICHIGAN STATE Board of Health. for the fiscal year ending September 30, 1882. Lansing: W. S. George & Co., State Printers. 1883. Cloth, pp. 630.

The elaborate studies of the meterological conditions in the separate portions of the state are important and will prove more and more so as time passes.

This same remark applies with even greater force to the weekly reports of sickness. The question is often asked what diseases cause most sickness? For 1880 in Michigan these reports give the following: Intermittent fever; bronchitis; remittent fever; rheumatism and neuralgia. The diseases causing the most deaths for the same period are: consumption, diphtheria, pneumonia, still born and old age. So that the diseases causing the maximum sickness, are quite different from those causing the maximum deaths.

Tables and propositions exhibit the relations of the various meteorological conditions to the several diseases. From the large area from which these facts are collated this study has an important bearing, and the results are worthy of consideration. To illustrate: "More than the average per cent. of weekly reports stated the presence of diphtheria in months when the average daily range of temperature, the relative humidity of the atmosphere, the average per cent. of cloudiness, the ozone, the average velocity of the wind, the monthly and the daily average range of the barometer, and the average daily pressure of the atmosphere were greater than for the average for the year; and less than the average per cent. of reports stated presence of diphtheria in months when these conditions were less than the average for the year." An excellent index closes the volume, rendering its entire contents available for the student at any time with the least effort.

The Second Volume of the Surgical History of the War of the Rebellion.*

This magnificent volume of over one thousand quarto pages now lies before us. This completes the surgical history of the war of the rebellion. Its real author, Surgeon George A. Otis, is dead; so also is Surgeon General Barnes, who did so much to help Otis in his work. It will remain for ages a living monument to the learning, intelligent industry and perseverance of Dr. Otis. It is one of the beneficent lights from the horrors of the late war. Since the death of Dr. Otis the preparation of the work has been under the charge of Surgeon D. L. Huntington. He has tried to follow out to the end in all details the plans of Dr. Otis. The work continues the treatment of regional injuries of gun-shot wounds, including those of the lower extremities, and miscellaneous injuries not strictly of gun-shot nature. Chapters on wounds and complications include facts of general interest and statistical value relative to wounds; to the nature, peculiarities and effects of missiles and projectiles; to conditions affecting the course and results of wounds with especial reference to the graver complications of secondary hæmorrhage, erysipelas, pyæmia, gangrene, and tetanus; and finally a condensed summary of operations and treatment. Anæsthetics with reference to their use in the army are fully considered. A chapter is devoted to a brief historical sketch of the medical staff. The concluding chapter treats of the methods of field, railway, and water transportation of the wounded.

Forty-four full-paged lithographs and chromo-lithographs and five hundred and ten engravings illustrate in a magnificent manner the text. In artistic excellence they are fully equal to those of former volumes. Full lists of the operators and reporters are given. The volume is indexed in the same thorough manner as former volumes. This work is one which every medical scholar can regard with pride, and every student of surgery can turn to with satisfaction. It is one of the things that commends itself to scientific men everywhere and especially to American surgeons.

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*THE MEDICAL AND SURGICAL HISTORY OF THE War of the Rebellion. Part III. Volume II. Surgical History. Prepared under the direction of Joseph K. Barnes, Surgeon General United States Army. By George A. Otis, Surgeon U. S. A., and D. L. Huntington, Surgeon U. S. A. First issue. Washington. 1883. Cloth; pp. 1,000.

Fifteenth Edition of the United States Dispensatory.*

The first edition of this work was given to the public more than fifty years ago. It at once commanded a large interest in both the medical and pharmaceutical professions. It was the sole expounder of the United States Pharmacopœia. Curiously this pharmacopœia was and is still so prepared as to require an interpreter. Some have been malicious enough to say that this was done on purpose that there might be a chance to manufacture a dispensatory from which to coin money. Be this as it may, it is certain that there has been a constant call for an explanatory companion of the pharmacopœias. The general characteristics of Wood's Dispensatory have been well known to at least two generations of physicians. The present edition is an effort to bring it within the.changes of the new pharmacopœia in all respects. Three editors have been employed for three years upon this work of revision. Dr. H. C. Wood has rewritten the articles treating of the medical properties and uses of drugs; also the botany and vegetable materia medica. Prof. Joseph P. Remington has rewritten the chapters upon the pharmacy and pharmaceutical chemistry and Prof. S. P. Sadtler has remoulded the portions relating to toxicology and theoretical chemistry. Among the new features of this edition are an indication of the pronunciation by diacritical marks and a complete list of American mineral springs with their analyses so far as they have been published. An analysis of many European springs is also given. Quite a number of new and original drug illustrations are given, those giving representations of microscopical sections are of especial value. The alphabetical arrangement adopted in conformity to the pharmacopœia is one of great convenience to all who shall use the work.

So complete have been the changes in the work that it is really a new one constructed upon the same general principles as the old one. The details of the construction have all been looked after most carefully. We have no doubt that its old time popularity will be regained, as it will be of infinite service to both physician and druggist alike. Nor can medical students do better than to study it thoroughly. An exhaustively prepared index and a separate index for the mineral waters renders all details readily available to the student.

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Hoffman and Powers' Manual of Chemical Analysis—Third Edition.*

For ten years this work has been before the profession. Hence its general merits are well understood. It was prepared for the convenience of such as dispense medicines. Hence the physician who puts up his own medicines, the retail pharmacist, and to some extent the manufacturing chemist and the wholesale druggist, are all interested in the subject matter of this volume. Those who dispense drugs are responsible for identity, quality and purity of the drugs sold. The selling of oxalic acid for Epsom salts, of cyanide of potassium for citrate of potash, are not at all conducive to the prosperity of either the community or the seller of drugs. Then the purchaser of drugs needs to be familiar with all their properties so as to be able to judge of a good quality of a drug or any of its preparations. It is for this in part that retail druggists are needed. Full details for the performance of this duty are given in the volume before us. It is moreover so changed in the present edition as to be adapted to the pharmacopœias of the United States of America and the German Empire, and the most modern contributions to this art.

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Ockford's Hand-Book of Homœopathic Practice.†

This only claims to be a compilation of accepted facts and theories according to the homœopathic faith. Nor does it claim to cover all diseases, but only the principal ones. The author terms it a series of notes culled from the writings of foreign and American authorities. We were struck with one claim of the author, viz., that "it is one of the glories of homœopathy that its practitioners have remedies wherewith to combat the acute and chronic disorders produced by sudden grief, joy, anger, etc." Thus sudden fright is best relieved by opium, sudden joy by coffee, vexation by chamomilla, anger by arnica, grief by phosphoric acid, homesickness by capsicum, etc., disappointed love by ignatia, and, if accompanied by jealousy, by adding hyoscyamus. The book will doubtless be of interest to such as believe in its doctrines.

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*The Dispensatory of the United States of America. By Dr. Geo. B. Wood and Dr. Franklin Bache. Fifteenth edition, rearranged and largely rewritten with illustrations by H. C. Wood, M. D., Joseph P. Remington, Ph. G. and Samuel P. Sadtler, Ph. D., F. C. S. Philadelphia: J. B. Lippincott & Co. 1883. Pp. 1938; sheep.

*A Manual of Chemical Analysis, as applied to the examination of medical chemicals. Third edition, revised and enlarged. By Frederick Hoffmam, A. M. Ph. D., and Frederick B. Power, Ph. D. Philadelphia: Henry C. Lea's Son & Co. 1883. Cloth; pp. 624.

†A Hand-Book of Homœopathic Practice. By George M. Ockford, M. D. Chicago: Duncan Brothers. 1882. Cloth; pp. 435. Price, $3.00.

Nettleship on Diseases of the Eye—Second Edition.*

The second edition of this work lies before us. To the English text has been added a chapter on examination for color perception, by Dr. William Thomson, of Philadelphia. Of course the general characteristics of this edition are like those of the first. These were such as to at once popularize the book among both students and general practitioners. It is one of the most attractive, condensed text books that we have ever read. In fact we read the entire book from simple pleasure of reading. True the author has condensed all the more generally accepted facts of ophthalmology, but this has been well done in other works. His style is his peculiar charm, a style that sacrifices nothing to truth or completeness, and yet is always pleasing. We can heartily commend this work to those who are seeking a condensed account of modern ophthalmology. Especially is it suitable to under-graduates or such graduates or practitioners as have had no real training in ophthalmology, and this class is very large. That it will do much in this way to prevent the loss of eyes, we have no doubt.

Beard on Herbert Spencer's Account of American Nervousness.*

This was the last work of its lamented author. It places in parallel columns quotations from a paper by Spencer published in the *Popular Science Monthly*, and other quotations from Beard's work upon American Nervousness. The identity of the lines of thought and expression as thus exhibited, is very striking. One of two things must be true: either Spencer borrowed from Beard, or from the same source. It looks very like abstraction from Beard's work.

Hermann's Experimental Pharmacology.*

This little work places before the profession the practical details for studying the physiological actions of drugs. Its object is to help such students of this branch of medicine as have not had the advantages of a training in a practical physiological laboratory, so that they may make these important investigations. The translator has added greatly to the value of the work by his judicious additions. The illustrations are well selected for the writer's purpose. Very much is lost in that all medical students and physicians are not made practically familiar with the real effects of poisons upon the several processes of the animal body. We most heartily commend this work to all students of either physiology or pharmacology in any or all of their relations.

Hart and Barbour's Manual of Gynæcology—Volume II.†

The general characteristics of this volume are very like those of the first volume. The subjects discussed are divided as follows: Affections of the uterus, affections of the vagina, affections of the vulva and pelvic floor, disturbances of the menstrual function, disturbances of the reproductive function and affections of the bladder and rectum. Over two hundred illustrations are given, and with a fitness equal to those in the first volume. All subjects are treated with the greatest conciseness. For good or otherwise the author's meaning is rendered so clear as to be readily grasped by the reader. It is a most excellent work, one which greatly increases the value of the series of standard authors with which it is published.

Transactions of the American Medical Association for 1882.‡

The meeting at which these transactions took place occurred last June, and yet only after ten months have the transactions reached us. From facts already fully stated in the medical journals it seems probable that the publication of the transactions of the next meeting will be issued in a weekly journal owned by the association, immediately after the next meeting. Hence, we may hope to have the transactions at a much earlier date than formerly. Concerning the contents of this volume it is needless to speak as we gave a full notice of the meeting directly after it took place. It is well edited and will occupy an honored position by the side of the former volumes.

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*Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S. Second American from second revised and enlarged English edition. Philadelphia: Henry C. Lea's Son & Co. 1883. Pp. 400. For sale by John Willyoung, Detroit.

*Herbert Spencer on American Nervousness. A scientific coincidence. By George M. Beard, M. D. New York: G. P. Putnam's Sons. 1883. Paper; pp. 17. Price, 50 cents. For sale by Gorton, Blewett & Co., Woodward Avenue, Detroit.

*Experimental Pharmacology. A hand-book of methods for studying the physiological actions of drugs. By L. Hermann. Translated by Dr. R. M. Smith, with thirty-two illustrations on wood. Philadelphia: Henry C. Lea's Son & Co. 1883. Cloth; pp. 200.

†Manual of Gynæcology. By D. Berry Hart, M. D., F. R. C. P. E., and A. H. Barbour, M. A., B. Sc. M. B. Volume II., with one lithograph and two hundred and ten wood cuts. New York: William Wood & Co. 1883. The February issue of Wood's Library. Sold only by subscription.

‡Transactions of the American Medical Association. Volume xxxiii. Philadelphia. 1882. Cloth, pp. 669.

Drake on Diphtheria.*

The writer gives an account of an epidemic of diphtheria in Hastings, Mich. The death-rate of the regular practitioners was 10.50 per cent. The most prominent homœopath at first lost no cases, but after a time they began to die like the others. He then told his patrons that they had a medicine, if they could only get it, which would certainly cure diphtheria. It was prepared from meat that had been poisoned by being bitten by a very venomous reptile, and from this the diphtheria antidote was prepared. Well, at last, after much suffering and many deaths, some of the valuable remedy was procured (so said), but the undertaker kept right on burying their patients all the same. According to their reports to the board of health their death-rate was 26.66 per cent."

Playfair on the Systematic Treatment of Nerve Prostration and Hysteria.†

This book expresses the author's opinion of the Mitchell treatment of this class of cases. He adds his personal endorsement of this well known method. Much valuable information is added in various directions. The work is a very readable and instructive one, worthy of the most careful study of every practicing physician.

Abstracts from Exchanges.

Prepared by Judson Bradley, M. D., and A. B. Lyons, M. D.

Gynæcology.

The Surgical Aspects of Gynæcology.—Dr. Jas. B. Hunter (*N. Y. Medical Journal*, Feb., 1882) pleads for the proper appreciation of surgical proceedings in gynæcology. From his paper he draws the following conclusions:

1. There appears to be no good reason to suppose that those who practice gynæcology are less competent than others to judge of the necessity, in any given case, of resorting to surgery.

2. Those who deprecate the surgical resources of the gynæcologist are not those whose studies or opportunities entitle their opinions, on this particular subject, to great weight.

3. The foundation of modern gynæcology is surgery—modern surgery, with all its improvements, and with all the advantages it derives from the antiseptic system. The triumphs of gynæcology have been gained almost entirely in the field of surgery.

4. To those who still doubt the value of surgical procedures which seem to the "inner circle" amply proven, I would reply by another quotation from Dr. Van Buren, who says, with exquisite courtesy, speaking of an operation about the value of which he has no doubt, but which is subject to the opposition of inexperience: "I cannot help think that those who speak unfavorably of this measure may not have fully tried it."

Mental Diseases.

Suicide.—Dr. G. Liebmann (*Trans. Maryland Med. Society*) concludes an interesting paper on this subject thus:

1. Suicide can be traced in the majority of cases to insanity.

2. In a minority of cases insanity must be excluded.

3. Suicide is on the increase in a regular proportion.

4. Suicide is of greater frequency in the male than the female sex.

5. Suicide occurs in all ages.

6. It is influenced by the seasons and by climate.

7. Suicide is more frequent in prosperous and highly civilized than in barbarous races.

Nervous Diseases.

Genital Irritation as a Cause of Nervous Disorders.—Dr. L. C. Gray (*Annals of Anatomy and Surgery*, February, 1882) concludes an able paper summarizing the facts hitherto recorded on this subject thus:

1. That there is no proof that genital irritation can produce a reflex paralysis.

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*Diphtheria. A paper read before the Berry and Eaton County Medical Society, by A. P. Drake, M. D.

†The Systemic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M. D., F. R. C. P. Philadelphia: Henry C. Lea's Son & Co. 1883. Cloth, pp. 110.

2. That while it is probable that slight nervous disorders, as incontinence, retention, difficult micturition, erratic movements and slight nervous disturbances can be produced by genital irritation, the proof is not yet complete.

3. That operations for the removal of genital irritation may be beneficial even in organic nervous disease.

4. That we should, therefore, remove such genital irritation, if it exist in any case whatsoever, and thus give our patients the benefit of the doubt.

5. That in all cases of nervous disorders, with accompanying genital irritation, we should not regard the latter as the cause of the former until all other probable or even possible causes have been rigidly excluded.

6. That operations upon the genitals, even when there be no genital irritation, may prove to be an useful therapeutic measure in certain cases.

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Otology.

THE INTERMITTENT PERCEPTION OF SOUND.—Dr. J. A. Andrews (*N.-Y. Medical Journal*, Feb., 1882) formulates the differential diagnosis between an affection of the middle ear and one of the labyrinth as indicated by the tuning fork thus:

1. If a vibrating tuning-fork, c, be placed between the teeth, the hearing power being normal on one side and diminished on the other, and its tone be intensified in the ear of which the hearing power is diminished, the cause is seated in the external or middle ear, and the labyrinth is unaffected.

2. If the hearing power be impaired in both ears, and the sound of the tuning-fork be heard better in the worse ear, and intensified on closure of the ear of which the hearing power is most impaired, the cause is still located in the middle ear.

3. If under either of the above-mentioned conditions the vibrations of the tuning-fork be not heard better in that ear of which the hearing power is most impaired, even if its meatus be closed with the finger, and middle-ear disease as a cause can be excluded, there is an affection of the central apparatus of hearing. If the tone of the tuning-fork be still intensified by closure of the ear of which the hearing power is least impaired there is disease of the central apparatus on one side only.

Should the sound of the tuning-fork not be intensified by closure of either ear, then the disease is on both sides, and has its seat in the labyrinth or in the brain.

In the first and second propositions the increased resonance results, as has been explained above, from the reflection of the vibration from the cranial bones upon the nerves.

In the third proposition the reflection or condensation of the vibrations of the tuning-fork upon the nerve when the meatus is closed does not intensify their perception, because the function of the auditory nerve itself and not that of the conducting apparatus is impaired. The foregoing points are, I believe, accepted by the majority of otologists; but it appears to be the opinion of a recent writer* that, "if the tuning-fork on the vertex be heard in the affected ear, we cannot place the lesion in the labyrinth." This opinion, although emanating from an astute observer, must be incorrect; at least we have in the eye positive evidence that the optic nerve may be considerably affected by acute or chronic disease, and useful vision still remain.

The peculiarity that in some cases of middle-ear disease the watch is not heard by bone conduction, and in other cases examination with the tuning-fork gives the signs of labyrinth disease—*i. e.*, the tuning-fork being heard by bone conduction better in the ear which is normal as to hearing power, therefore diminished instead of increased in the ear of which the hearing capacity is impaired—cannot, it seems to me, be explained by assuming an interference with the conduction through the chain of ossicles. I incline to the belief, based upon experiments, that this phenomenon is due to increased intra-labyrinthine pressure, brought about in those cases of middle-ear disease in which there is an accumulation of fluid in the tympanum, or the membrana tympani is much depressed, in the former instance by the fluid in the cavity acting upon the oval or round window, or both, and in the latter instance by the plate of the stapes being forced against the membrane in the oval window. In both cases the terminations of the acoustic nerve suffer a mechanical irritation which gives rise on the one hand to subjective noises in the ear, and on the other hand annuls the perception of certain tones. Extreme pressure upon these parts may so interfere with intra-labyrinthine vibrations as to completely obliterate bone conduction for the tuning-fork.

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*C. H. Burnett, M. D., "Amer. Jour. Otol.," iii, p. 200.

The four cases given in this paper have been selected from the records of a large number of a similar class, in all of which the intermittence of the sound conduction through the cranial bones was brought about by the presence of disease changes in the middle-ear; and, if it can be established as a fact that this part and not the labyrinth is the actual seat of the cause of intermittence, certainly a great advantage will be gained, because, our knowledge of the pathology of the labyrinth being so meager, we should, by directing our efforts in treatment toward the diseases of the middle-ear—which are well understood, and in which timely and appropriate therapeutic measures often yield encouraging results—be enabled to give a more favorable prognosis.

Psychology.

EFFECTS ON THE BRAIN OF DISEASES OF THE ABDOMEN.—Dr. Richard Gundry (*Trans. Maryland Med. Society*, 1881), makes the following statements on this point:

The diseases of the stomach and intestinal canal are often, if not generally, accompanied by more prolonged departure from a normal condition of the emotional and intellectual states, especially the former Even the temporary abeyance of the ordinary functions causes a cloud of fitful temper or moroseness upon the day's prospects. Voltaire wittily observes, that if the courtier wishes to obtain a favor from a minister he should first enquire of his valet whether the august person has had his usual dejection, and retire upon receiving a reply in the negative. Constipation undoubtedly correlates in morbid temper and sullen moods. Dyspepsia warps the mind, evokes all the jealousy and envy and ill will man's nature is capable of. The reminiscences of Carlyle afford painfully striking illustrations of this cause and its natural effects. The fretfulness of Napoleon I. at St. Helena, his undignified squabbles and irritability at slight insults, his construing everything into intentional insults, may have been due, with all due allowance for a temper illy brooking any contradiction, in no slight degree to the corroding influence of the carcinoma of the stomach, of which he died. Compare the constant irritability of his last year with the apathy and amiability of Napoleon III, who, with renal calculus, underwent fatigue, defeat and deprivation of all an ambitious man holds dear, with rare equanimity and good nature. The stomach of the one, largely supplied with the sympathetic nerves, was the seat of disease; while the kidney and bladder of the other but slightly connected with that system were affected.

In Addison's disease of the supra-renal glands the emotional disturbance is very marked. These small bodies receive an extraordinarily large supply of nerves, both in their number and size, from the sympathetic system, and no cerebral nerves at all. Long before the patient is forced, by the degree of his illness, to abandon his usual occupation, he is greatly troubled with listlessness, languor and low spirits, and as the disease advances these symptoms increase, and attacks of extreme low spirits and of great terror are common. The paroxysms of terror gradually abating leave behind the most persistent impression of fear—dread of impending evil, not always associated with any external object, though sometimes an object is connected with the fear utterly disproportioned to the evil apprehended. In one case I noticed the paroxysm of excessive terror, accompanied with trembling and profuse sweating, increased heart action, but no palpitation; but the intellect remained clear and the patient could give no explanation except she could not be left alone and was afraid. As the paroxysms subsided she became very nervous, jealous of every other person, suspicious of every attention offered to her—all of which she seemed to recognize as groundless when her intellect was directed to them; but to which, nevertheless, she naturally yielded until they influenced her whole life. Autopsy revealed marked degeneration of supra-renal bodies. In another case, a worthy mechanic suffered from the same disease (though not at first recognized), during the course of which his ordinary great depression and fear about himself, which all around thought exaggerated and whimsical, were at intervals replaced by attacks of intense anger without adequate cause, and hatred towards persons around him with expressions of extreme terror at the evil they designed. Yet his intellect could frame no reason for this anger or terror. The tremblings and perspiration with which he was bathed and the intensity of the emotional explosion were very striking shortly before death. This terror resembled that most terrible *panic-struck condition* which may be seen in acute melancholia, only his intellect was apparently never involved. He felt the terror and could not resist, but knew not why. Abscess of the supra-renal capsules was revealed after death. The sanity of this man had never been in dispute. His intellect appeared at all times unclouded, and to the last he was a successful business man.

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Original Communications.

The Physical Exciting Causes of Insanity.

BY DR. JAS. G. KIERNAN, CHICAGO, ILL.

LECTURE VI.

THESE may be divided into toxic causes, which include quinine, lead, brass, belladonna, opium, alcohol, salicylic acid, iodoform, duboisia, ergot, diseased maize, the bromides, chloral hydrate and malaria; the exanthemata and constitutional affections; traumatism; insolation; other nervous diseases; cardiac, pulmonary, renal, genito-urinary and intestinal affections and cases from reflex action.

The only cases due to the action of quinine known to me are two, which came under my own observation.

While lead appears to be a not infrequent cause of general neuroses, opinions vary widely as to the extent of its etiological power in the production of insanity. Exact figures are wanting, however, though details of well-reported cases are by no means uncommon. Among the earliest to describe cases of this kind was Tanquerel des Planches,[1] whose description is one fully covering many points of value even now. He found that lead produced both an acute and a chronic form of insanity, the acute form being a species of melancholic frenzy with great incoherence. Lange,[2] Closs[3] and Boettger[4] describe cases of a similar type. Moreau[5] (de Tours), Bottentuit[6] and Guislain[7] narrate cases of melancholia attonita due to this cause. Leisdesdorf,[8] Popp,[9] Brochin[10] and Hirt[11] report cases of what they call mania transitoria due to this cause, the mania having a decidedly melancholic type. Bartens[1] deals with this subject very fully, and finds that the psychoses produced by lead are both of a chronic and acute variety; that the acute form is of short duration, depressing type, great incoherence, and very vivid hallucinations of sight and hearing. Lead poisoning has, according to Falke,[2] produced very similar phenomena in cattle. In some cases melancholia attonitá is present. The chronic type presents hallucinations of taste, touch, sight and hearing; the patients are suspicious and have delusions of persecution. Some present the physical phenomena of progressive paresis. The prognosis of the acute type, according to Bartens, is by no means unfavorable; two-thirds of his cases recovered. Paralytic and choreic complications are not rare, and the maniacal furor is at times not unlikely to lead to death from exhaustion. The prognosis of the chronic type, as regards recovery, is, of course, unfavorable. The great tendency of these latter cases to the development of apoplectiform attacks renders the prognosis, as regards life, a very grave one.

Goodheart[3] believes the sequence of events produced by lead is as follows: Introduction of lead, vascular tension, arterial spasm followed by convulsions or mania leading to permanently impaired brain nutrition by reason of permanent spasm of the cerebral arteries. He has found that lead gives rise to progressive paresis and other less pronounced psychoses. Meyer,[4] Desveuges,[5] and Delasiauve[6] has had a similar experience.

Maccabe[6] reports a case of what he calls monomania with depressing delusions and hallucinations, clearly traceable to the use of lead. I have seen thirty cases of insanity due to lead poisoning, about one and a half per cent. of the cases of insanity coming under my observation. There was in the great majority of these cases a strong hereditary taint. Of these thirty cases eight were cases of melancholia of greater or lesser duration; three cases of acute insanity of short duration, five were cases of the second group, nine were cases of terminal dementia and five were cases of progressive paresis. In contrast with these results it may be said that the cases reported by Bartens have been principally melancholia with frenzy, and melancholia attonita. The chronic types given by him were principally dementia. While it cannot be said that these cases denote that lead produces peculiar psychoses, it certainly gives a depressing tinge to any psychoses caused by it. Like Bartens I have found that the acute psychoses produced by lead have a favorable prognosis; all of my cases recovered, but the chronic forms all died or remained permanently insane.

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[1] Maladies de Plomb, Paris, 1839.

[2] Beobachtungen am Krankenbett, 1860.

[3] Wurtemberger Medecinisches Correspondenzblatt, No. 51, 1852.

[4] Allgemeine Zeitschrift für Psychiatrie. Band xxvi.

[5] Allgemeine Zeitschrift für Psychiatrie. Band xxxvii. Heft 1.

[6] Bericht über Thierarzneikunde.

[7] Annales Medico Psychologiques, 1855.

[8] L'Union Medicale, 151, 1873.

[9] Les Phrenopathies.

[10] Lehrbuch der Psychischen Krankheiten.

[11] Bayerisches Artztliches Intelligenzblatt, p. 357, 1874.

[1] Krankheiten der Arbeiter.

[2] Gazette des Hopitaux, 24, 1875.

[3] British Medical Journal, April 11, 1882.

[4] Thése de Paris, 1881.

[5] Annales Medico Psychologiques, 1850, 1851.

Journal of Mental Science, July, 1872.

Binswanger[1] has found that transitory furor is sometimes produced by brass poisoning.

Belladonna has produced types of insanity resembling melancholia with frenzy. These differed from the delirium due to belladonna by their length. Chisholm[2] has reported a case of insanity due to the instillation of duboisia into the eye. Cases of insanity from the use of salicylic acid have been reported by Barlones,[3] Bogdanow,[4] Diesterweg,[5] Finlay,[6] Lucas,[6] Chorkey,[6] and Stricker.[7] The type of insanity so produced was, as might have been expected, melancholia with frenzy. Iodoform has been found by Schede[8] and Koenig[9] to produce types of insanity varying from melancholia attonita to melancholia with frenzy. Smidt[10] reports a chronic type due to this cause. Blandford[11] reports analogous cases due to Indian hemp.

Siemens[12] has carefully studied the types of insanity due to ergot and finds that the chief symptoms were that the pupils became greatly dilated—sometimes unequal. There was apathy, succeeded by fits of sudden excitement, with violent tendencies; genuine epileptic attacks preceded by a short aura of teeth-chattering and yawning; the convulsive stage being accompanied by complete unconsciousness; in some cases a period of violent excitement takes the place of the convulsion.

There is a form of insanity associated usually with skin disease which proceeds from the consumption of bad or diseased maize. It is common in Spain and Italy, rare in France, but is not found elsewhere. Lombroso[1] says that insanity from this cause may vary from melancholia attonita to melancholia with frenzy. There are also chronic types reported by Lombroso[2] of insanity due to this cause. There is a too great tendency in Italy to ascribe all cases of insanity in which pellagra coexists with the insanity to the pellegra. At least two-thirds of the cases described are varieties which the pellagrous element simply complicates and does not produce.

Salerio[3] cites cases which in a general way resemble those produced by ergot. The general opinion is that maize properly kept does not produce pellagra. The pellagrous condition of the skin may exist independently of the insanity.

Dr. Bannister[4] has called attention to varieties of insanity produced in insane epileptics by the use of the bromides. One type of insanity was not produced by the suppression of the fits as in the cases reported by Stark[5], Sequin[6], and Hammond[7], Hughes[8] and Shaw.[9] A like condition to that reported by Bannister has been met with by Spitzka[8] and Jewell[10]. The following case came under my observation:

A patient æt. 18, whose grandfather died of apoplexy and whose father had in early life had grand mal, which later on became petit mal; he believing himself to be cured, displayed no mental symptoms other than dementia until placed under the bromides. Previously to their use he had convulsions three times a week. Under the bromides these convulsions remained as frequent, but attacks of violent excitement developed which disappeared and reappeared as the bromides were used and disused. The addition of ergot and conium controlled both the convulsions and this excitement.

Dr. W. A. Hammond[11] has reported a case in which bromide of potassium produced symptoms resembling those of progressive paresis. In one case reported by Dr. G. M. Beard[1], a young physician committed suicide during an attack of melancholia with frenzy, produced by excessive bromidization. Dr. Beard has also observed cases similar to the one reported by Dr. Hammond.

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[1] Neurologisches Centralblatt, March, 1882.

[2] Maryland Medical Journal. December 15, 1881.

[3] Medical Record, April 29, 1882.

[4] Wratch, No. 12, 1882.

[5] Centralblatt für Chirurgie, No. 3, 1882.

[6] Lancet, 1882.

[7] Centralblatt für Chirurgie, No. 10, 1882.

[8] Centralblatt für Chirurgie, No. 3. 1882.

[9] Ibid, No. 7 and 8, 1882.

[10] Op. Cit.

[11] Centralblatt für Nervenheilkunde, Dec. 1, 1882.

[12] Archiv für Psychiatrie Band xi.

[1] Cited by Bucknill and Tuke, Pyschological Medicine, p. 395.

[2] Cited by Billod Pellagra.

[3] Studi Clinici ed Esperementali Sulla Natura, Causa e Terapia della Pellagra.

[4] Journal of Nervous and Mental Disease, July, 1881. American Journal of Neurology and Psychiatry, 1882.

[5] Allgemeine Zeitschrift für Psychiatrie, Band xxx.

[6] Ibid, p. 592.

[7] Ibid, p 593.

[8] Alienist and Neurologist, January, 1883.

[9] Journal of Nervous and Mental Disease, July, 1881.

[10] Ibid, p. 591.

[11] Quarterly Journal of Psychological Medicine, Vol. i, 1860, p. 46.

Cases of melancholia with frenzy produced by chloral have been reported by Drs. King[2], Kinsman[3], Bond[4], Roswell Park[5], Hayne[6], Doane[6], Pollock[5] and Crothers[6]. In eleven cases cited by Kane various forms of dementia were produced by the drug. In three cases coming under my observation the symptoms produced varied from those resembling progressive paresis to, as a rule, melancholia with frenzy.

Morphine and the opium preparations do cause insanity, but their influence is much over-estimated. The types so produced are usually dementia, mute mania and sometimes melancholia attonita and melancholia with frenzy. Coexistent insanity is very frequently regarded as caused by opium, it being really the provocation for the use of opium.[6]

Dr. Paul Moreau[7] (de Tours) has recently reported cases of insanity produced by carbonic oxide on individuals exposed to its influence during domestic occupations. The symptoms described are those of melancholia with frenzy.

The influence of alcohol, like that of opium, has been much over-estimated. It does act as both a predisposing and a determining or exciting cause, but a large proportion of the cases referred to it are alcoholists because of their insanity, and not insane because of their alcoholism. It produces melancholia with frenzy, types of acute mania, chronic types of insanity; the chief peculiarity of which is an insane jealousy, epileptic insanity and progressive paresis.

Dr. Sutherland[8] has drawn a distinction between the types of insanity produced by alcohol alone and those occasioned by intemperance. In the first case melancholia with frenzy was the rule; in the second melancholia of a subdued type. He claims that if the intemperance is a result of the insanity the patient is content with a moderate degree of stimulant; if *vice versa*, there is extreme constant craving. My own experience is totally opposed to this and I have been unable to draw any distinction after most careful use of Dr. Sutherland's principles. Leudet[1] reports cases characterized by great activity of ideas which may be of an exalted type.

The types of progressive paresis produced by alcohol cannot be said to vary from the ordinary types of progressive paresis except that they are secondary to other psychoses. Marce,[2] Falret[3] and Dagonet[4] have all reported cases of this kind. These types of insanity should not be confounded with delirium tremens.

The influence of malaria has been like that of so many other causes much over estimated at one time and by a subsequent reaction correspondingly depreciated. Flemming[6] reports a case where attacks of frenzy took the place of the paroxysms of intermittent fever. Jocke,[6] Griesinger[7] and Clouston[8] have reported similar cases. I have observed both these types and a cataleptoid condition to result from malarial influences. Dr. King[9] reports a case of imperative conceptions, pyromaniac in character, occurring in a ten year old boy and cured by anti-malarial treatment. There was some hereditary taint. Mickle[10] has reported a case in which there was marked violence and excitability caused by malaria and cured by quinine.

LECTURE VII.—ETIOLOGY, EXANTHEMATA; FEVERS AND CONSTITUTIONAL DISEASES.

Emminghaus,[11] Shepard,[12] Kräpelin,[13] Berti,[14] Lagardelle[15] and Clouston[16] have reported cases of insanity due to variola. Whatever be the part, real or ideal, taken by the febrile state, the cerebral congestion, the infectious material, acting or not through decomposition of albumen in the pustules, types of insanity due to this disease present themselves in two great categories; those due to extreme high temperature (of the initial period and period of suppuration) and those due to asthenia (of period of eruption and the terminal period.) The first class is marked by symptoms of melancholia with frenzy. The second class affords examples of two types; the first occurs with the fall of temperature between the period of eruption and that of suppuration; the second during desquamation. The first present disagreeable hallucinations of sight and hearing and are of short duration. The second are slow in evolution and last longer. They are melancholic in character. To these two types should be added an encephalitic type occurring during the hyperpyrexia.

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[1] Journal of Nervous and Mental Disease, 1881, p. 498.

[2] Cited by Kane, "Drugs that Enslave."

[3] Ibid.

[4] Lancet, March, 11, 1876.

[5] Kane, op. cit.

[6] American Journal of Stimulants and Narcotics, Vol. 1, No 1.

[7] Cited by Luys, op. cit, p 259.

[8] Journal of Nervous and Mental Disease, 1881, p. 185.

[1] Gazette Hebdomadaire, 1875, p. 643.

[2] Traité Pratique des Maladies Mentales, p. 615.

[3] Recherches sur la Folie Paralytique.

[4] Annales Medico-Psychologiques, March, 1873.

[5] Psychosen, p. 87.

[6] Zeitschrift für Psychiatrie, Band v. p. 376.

[7] Op. cit, p. 129.

[8] Journal of Mental Science, April, 1875.

[9] Alienist and Neurologist, Volume 1, p. 346.

[10] Practitioner, November, 1881.

[11] Opus cit.

[12] Lectures on Madness.

[13] Archiv. für Psychiatrie, Band xii.

[14] Giornale Venete delle Scienze Mediche, vol. xviii, No. 3.

[15] La Variola et L'alienation Mentale.

[16] Journal of Mental Science, April, 1875.

The relations between scarlatina and insanity have been recognized for a long time; still there are but few cases in which the etiological relation has been determined with certainty. Spitzka,[1] Clouston,[2] Mendel,[3] Christian,[4] Fraser,[5] Kräpelin,[6] Scholz,[7] Rabuske,[8] Krauss,[9] Bucknill and Tuke,[10] Weber,[11] Mitchell,[12] Wicks,[13] Pritchard[14] and Thore,[15] have all reported cases, the predominant characteristics of most of which were hallucinations accompanied by marked motor excitement. Many cases of dementia are reported as having resulted from a meningeal change secondary to the scarlet fever. Melancholia with stupor has been present in a few cases. In Rabuske's case the disease began with the usual symptoms of scarlet fever. On the third day of the disease the mental symptoms made their appearance. The patient had marked hallucinations of sight and hearing, of depressing type, relating chiefly to the military; a parade had been seen by him just before falling ill. The fifth day of the disease the psychical disturbances had reached their greatest height. The patient recovered, on the tenth day of the disease. Just previous to the onset of the psychical disturbance, the temperature sank from 102.5° F., which it reached by the second day of the fever, to normal. There was no hereditary tendency in the case. The patient was twenty-one years of age and had hitherto enjoyed good health. The cases reported by Scholz, Christian, Thore, Weber and Mitchell were very similar. Fraser's case was one of melancholia attonita.

Kräpelin finds that insanity from scarlatina is most frequent among adults. He finds that the types occurring during the hyperpyrexia are those of melancholia with frenzy attended by hallucinations. During convalescence the psychical disturbance is similar but much more subdued.

The psychical phenomena resulting from scarlet fever, which have come under my observation, can be ranged in three classes. First, those in which hallucinations and motor phenomena made their appearance, accompanied by depression of an agitated type. Second, those in which dementia resulted from the disease. Third, those in which a marked change in the patient's character occurred. Hereditary taint was very marked in the first class of cases. These cases are as follows:

Case 1.—D. P., æt. six; family history shows marked neuropathic taint; the paternal grandfather died of apoplexy; the father is liable to attacks of vertigo, in consequence of which he was forced to abandon his trade (mason), after having sustained serious injuries by falling from a ladder during an attack of this kind. His eldest daughter is a hystero-epileptic, and has, at irregular intervals, a hard, brassy cough of hysterical origin, the lungs and larynx being healthy. She has had stigmata make their appearance from time to time, as a rule, during suppression of the menses. All the children, nine in number, have suffered from convulsions during the first dentition, of which two of them died. One child died from a convulsive attack brought on by overheating. Just previous to the menstrual period three of the girls had somnambulistic attacks, which vanished on the appearance of the menstrual flow. The little girl first mentioned was attacked by scarlet fever, which went through its early stages in the usual way. About the fifth day after the appearance of the scarlatinal eruption, the temperature, which had risen to 104°, suddenly sank to 98°, and the child became extremely restless and violent. About two weeks prior to the attack of scarlet fever, while coming home from school, she had been much frightened by a Chinaman. She now complained that she saw this man's face at the window, and that his hands were stretched out to grasp her. This condition continued for two days, and then gave place to one in which the child was greatly agitated and very incoherent; she was at the same time much depressed. She remained in this condition a week and then fully recovered.

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[1] American Journal of Neurology and Psychiatry, 1882.
[2] Journal of Mental Science, April, 1875.
[3] Deutsche Medicinische Wochenschrift, March, 1881.
[4] Archives Générales de Medicine.
[5] Practitioner, July 1882.
[6] Archiv. für Psychiatrie, Band xii.
[7] Archiv. für Psychiatrie, Band iii.
[8] Deutsche Medicinische Wochenschrift, October 15, 1881.
[9] Archiv. für Psychiatrie, Band ii.
[10] Pyschological Medicine.
[11] Medico-Chirurgical Transactions, vol. x, tr. viii.
[12] Edinburgh Medical Journal, February, 1882.
[13] Cincinnati Lancet and Clinic, March 10, 1883.
[14] American Medical Weekly, January 20, 1882.
[15] Annales Médico-Psychologiques, 1880.

Case 2.—While this child was ill her sister, nine years old, was taken sick with scarlet fever. About the seventh day of the disease, the temperature, which had ranged between 102° and 106°, fell to 98½°, and symptoms similar to those of the first case made their appearance, followed by marked hallucinations of hearing. She claimed to hear some one crying to her: "Help! help!" She had no other hallucinations. These persisted for a week and then disappeared to give place to the condition of depression, agitation and incoherence present latterly in the first case. The patient remained about ten days in this condition and then recovered.

Case 3.—The next case occurred in another family. J. H., æt. eight years, belonged, like the cases last cited, to a neuropathic family. The maternal ancestors, for three generations, died of apoplexy. The father was very intemperate. The patient was one of twelve children, of whom three were still-born, one died a day after birth, and five are still living. Of the latter, one sister is a hystero-epileptic; one brother is an epileptic, and presented some other symptoms elsewhere described. J. H. was attacked by scarlet fever, which went through its usual stages till about the fourth day of the disease, when the temperature, which had reached 107°, suddenly fell to 98½°. The patient at the same time became markedly stupid and did not respond readily to any stimulus from the outside world. This condition persisted for about twenty-four hours; then the patient became agitated and restless; poked cotton in his ears and shut his eyes, complaining that he saw rats running all over the room and heard them squeaking. After treatment for two days he sank into a profound sleep which lasted ten hours, on waking from which he was much exhausted, but had fully regained his normal mental condition. The patient ultimately fully recovered.

Case 4.—The father of this patient had suffered from locomotor ataxia a year previous to her birth. One brother was an epileptic and a sister was insane. The child, a bright, lively little girl, was attacked by scarlet fever at the age of ten. About four days after the appearance of the eruption the temperature fell suddenly from 100°F. to 97.5°F. The child then displayed marked agitation and had well-marked hallucinations of sight and hearing, which related chiefly to her father. She claimed to see people running needles in him and heard him cry out. Under treatment the agitation disappeared and soon after the hallucinations. These psychical phenomena remained altogether about four days. The child had often heard her father complain of the fulgurant pains of his disease, which he compared to needles, and his agony under which was extreme.

Of the second group I have seen two cases. Both came under my observation when assistant physician to the New York City Asylum for Insane.

Case 1.—The patient was a marked dement, with impaired memory, very much diminished perception, and given to the performance of semi-automatic acts; for example, placing his hands together in the attitude of prayer would start him kneeling and crossing himself. This patient had been a bright intelligent boy up to the age of seventeen, when he was attacked by scarlet fever. From this sickness he was ill about two weeks. When the eruptions were desquamating there was a marked increase of the fever, followed by delirium. On recovering from the fever and delirium, the patient was found to be in the condition already described. For this he was treated a year at home and was then transferred.

Case 2 was that of a man aged thirty, whose only evidence of mentality was his always repeating "Sixty-six," and who could only be induced to feed himself after a spoon had been placed in his hand and lifted from the dish to his mouth several times. Like the former case, he had been perfectly sound mentally up to the age of eighteen, when he was attacked by scarlet fever, which was followed by meningitis, on recovering from which he was found to be in the condition already described. It is probable that in these and analogous cases there has been a meningeal process set up which becomes meningo-encephalitic in character. Similar cases are reported by Spitzka and Clouston.

The third group of cases is one in which there is a marked change of character from that which existed prior to the illness, or the general boyishness of disposition existing prior to the attack remains permanently during life. Occasionally this change of character proceeds to the extent of producing moral insanity.

The prognosis in the acute types is good. The acute types are infrequent, probably one-tenth of one per cent. of the insane have insanity due to this cause.

Measles is a still less frequent cause of insanity. Kräpelin[1] finds that the psychical phenomena due to the fever are accompanied with malancholic agitation. Four cases occurred during convalescences; one of these, a girl of thirteen, displayed melancholia with frenzy, accompanied by aural hallucinations; the second case displayed agitated melancholia, with confusion of ideas; the third case, a brother of the second, exhibited melancholia, with refusal of food; the fourth case, a young man of 27, displayed melancholia with frenzy, attended by hallucinations.

Madigan[2] says that insanity from measles often develops after a sudden fall of temperature, occasionally during extreme pyrexia. The patients manifest hallucinations of sight and hearing. They see disagreeable sights or hear disagreeable sounds. The delusions, if such exist, are of dread and persecution.

Another type of cases were these where, after an attack of what appears to be encephalitis, the patient is attacked by dementia.

Wicks[3] and Weber[4] have reported cases of the first type.

My own experience agrees rather with Madigan than with Kräpelin, who found that measles produced insanity chiefly in children. The only case due to measles coming under my observation was one very similar to the last group reported by Madigan.

Erysipelas has been found by Kräpelin, who is corroborated by Weber and Baillarger[5] to give rise to psychoses only when it affects the head. The psychical phenomena produced by it, according to them, have been delusions of grandeur, with hallucinations of hearing, rarely melancholia with frenzy or attonita.

Typhoid fever much more frequently produces psychoses than the other diseases mentioned. The initial forms present an active melancholic type. They are due, according to Kräpelin, to the direct effect of typhoid poison on the nervous system. The psychoses of the febrile state partake of the nature of melancholia with frenzy. The psychoses of convalescence present, as a rule, a type of melancholia more prolonged than the other states. Similar observations to those cited have been reported by Parchappe,[3] Sauret,[6] Leudet,[7] Louis,[8] Clouston,[9] Weber,[10] Griesinger,[11] Handfield Jones,[12] and Gübler.[13]

Whooping cough has, in three cases reported by Ferber,[14] resulted in insanity. These cases were types of active melancholia.

Asiatic cholera has been reported as a cause of insanity but rarely, and details of the cases produced by it are wanting.

Lombroso has reported cases of insanity due to diphtheria. The only cases traceable to this cause coming under my observation were cases due to encephalitis secondary to the diphtheria.

The relations of insanity to syphilis are multiform and require differentiation. Concerning insanities due to syphilis, Wille,[15] who has made what is perhaps the most logical and thorough analysis of syphilitic psychoses, claims that in the present position of cerebral syphilis the following psychoses can be distinguished: First, irritative psychoses based upon cerebral anæmia, following syphilitic infection even from its very commencement; second, simple inflammatory psychoses, due to meningitis and inflammatory softening of the cerebral substance; third, neoplastic psychoses, proceeding from cerebral and meningeal gummata. He is of opinion that secondary psychical symptoms may occur two months or two weeks after the original infection. Müller[16] expresses very similar opinions.

Griesinger[17] says that when acute mental disease affects patients during the secondary stage of syphilis, it chiefly affects those who have previously presented symptoms of abnormal cerebral activity, whose brain is previously affected, or in whose family nervous disease has frequently appeared. Hildebrand[18] and Ripping[19] express the same opinion.

Leubuscher[20] was the first to describe psychoses due to secondary syphilis. Prior to his time the tertiary alone was regarded as capable of producing insanity.

Berthier[21] and Drysdale[22] have reported several acute types of insanity due to secondary syphilis. Fournier describes several cases of insanity due to secondary syphilis. Mickle[23] reports a few cases of insanity due to secondary syphilis. Clouston[1] agrees substantially with Wille.

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[1] Opus cit.

[2] American Journal of Neurology and Psychiatry, May, 1883.

[3] Cincinnati Lancet and Clinic, March 10, 1883.

[4] Op. cit.

[5] Annales Médico-Psycholog., 1849.

[6] Annales Medico-Psychologiques, 1845.

[7] Ibid 1850.

[8] Researches on Typhoid Fever.

[9] Journal of Mental Science, April, 1875.

[10] Medico-Chirurgical Transactions, vol. xlviii.

[11] Pathology and Therapeutics of Mental Diseases.

[12] British Medical Jonrnal, January 12, 1867.

[13] Archives Générales de Medecine T. XIV.

[14] Cited by Kräpelin.

[15] Allgemeine Zeitschrift für Psychiatrie, Band xviii.

[16] Zeitschrift für Psychiatrie, Band XXX.

[17] Op. cit.

[18] Syphilis sous ses rapports avec Alienation Mentale.

[19] Ibid, 1880.

[20] Lehrbuch der Psychiatrie, 1861.

[21] Journal of Mental Science, 1873.

[22] British Medical Journal, September, 1879.

[23] L'Union Medical, May, 1865.

Cadell[2] reports the following case: A gentleman, æt. 48, contracted a chancre in January, 1870. A squamous syphilide made its appearance in April, accompanied with marked mental excitement and extreme restlessness, which reached its height during August and September, almost amounting to delirium. The patient took little rest in bed, but drove and rode about recklessly at night. Toward the end of October the excitement began to diminish, and in December nothing remained of it, the syphilide having meanwhile disappeared. In April, 1871, the hair of the head, eyebrows and beard began to fall out. This was accompanied with increasing despondency, which caused the patient to threaten suicide in July. After which 'paralysis of energy' manifested itself, the patient refusing to leave his bed. From October, 1871, to January, 1872, the patient scarcely left the house, but soon after, his bodily health improving, he began to improve mentally, and by June, 1873, was fully recovered."

The fact that secondary syphilis may give rise to acute mental diseases is acknowledged by the leading authorities who have written on the subject. Now, this being admitted as a cause, what symptoms does it give rise to?

Wille[3] says: "The first abnormal symptoms are psychical disorders and hypochondriacal fears, which generally show themselves as syphilophobia, or have a more general hypochondriacal or melancholic tinge." Albers[4] gives syphilitic hypochondria as the first stage of this type of mental disease. Liedesdorf[5] also mentions this hypochondria, but considers it as arising in a purely psychical manner. Leubuscher[6] claims that hypochondria is the most frequent type of mental diseases produced by syphilis. Engelsted[7] also mentions it as a symptom of secondary syphilis. Gros[8] describes this form, as also Lancereaux. Bucknill and Tuke[9], and Dreer agree substantially with Wille. The general symptoms given by authorities are therefore either of a hypochondriacal or of a melancholic type.

The cases coming under my observation were as follows:

Case 1.—E. J. S., Canadian, 35, tailor, periodic drinker. Criminal antecedents and criminal parentage. A sister and an aunt are prostitutes; one brother is idiotic and one is a professional burglar. Four weeks before admission had contracted the initial lesion which healed up without any treatment two weeks before admission. He was very morose, felt chilly sensations all over his body, and was very languid. Six days before admission he was attacked by a very violent fever, and complained of men being at the window with guns to shoot him. He was at the same times markedly terrified and depressed. On admission the patient had a temperature of 104.9° F., was markedly agitated, always in motion and much terrified. After the use of mercurials he became quieter. On the third day of this treatment a roseolaceous eruption made its appearance, which became pustular and gradually melted down into dark crusts. The discontinuance of treatment produced a relapse of the mental symptoms. He was thereupon wrapped in a sheet covered with mercurial ointment. The day following this, his temperature, which had temporarily risen, gained and the patient, though retaining his delusions, was quieter—more at ease and less agitated than he had been since admission. The treatment was continued for three weeks; the mental disturbance became less and less marked. The eruption began to cicatrize in places, and finally healed up, leaving thin red lines radiating from a centre. His delusions and hallucinations grew less and less vivid, until finally they seemed to him dreams of an unpleasant character through which he had passed. He still retained some gruffness and irascibility, but this was evidently natural to him and not due to insanity of manner, as an incautious observer might suppose. He remained in the asylum a month after the total disappearance of the mental symptoms, when, all symptoms of insanity having disappeared, he was discharged. A year subsequent to this, when last seen, he was in good health.

Case 2.—J. N., American, baker, 25 years of age, moderate drinker. A brother died insane and a sister is now an inmate of an asylum. On admission is very much agitated and has well marked hallucinations of sight and hearing; sees spiders crawling over him, and guns protruding from holes in the wall to shoot him. Hears wolves and lions howling and roaring at him; keeps always in motion;

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[1] British and Foreign Medico-Chirurgical Review, vol. lviii, 1876.

[2] Journal of Mental Science, January, 1870.

[3] Op. cit.

[4] Syphilitische Gehirnkrankheiten.

[5] Mental Diseases.

[6] Op cit.

[7] Cited by Luys. op. cit.

[8] Nervous Syphilitic Affections.

[9] Psychological Medicine.

can by dint of a great effort control himself and give a relatively rational answer to some questions. After recovery, he gave the following history: Four weeks before admission he had contracted the initial lesion of syphilis, and about the beginning of the fourth week thereafter had a distinct chill succeeded by a high fever. Believing this to be malaria, but feeling unaccountably depressed, he took ten grains of quinine and went on a visit to Central Park. While there he became so frightened at the howling of the wolves that his companion was obliged to draw him away to avoid attracting attention; this scene was repeated before the lions' cage. He was not afraid of the animals but of the noise made by them. He went home, becoming exceedingly delirious in the course of the day, crying out about the wolves and lions. In two days it was obvious that asylum treatment was necessary, and he was sent to Ward's Island.

On admission he had a temperature of 104°F., was fairly nourished, rather loquacious, which loquacity was at times broken in upon by his hallucinations. He was ordered quinia sulph. .30, ext. fl. conium 2.00, ext. fl. hyoscyamus 2.00, three times a day, with two grammes of chloral hydrate at night, with but little effect on the fever and none on the mental excitement. On the morning of the fourth day a roseolaceous eruption made its appearance on his forehead around the roots of the hair. The patient was ordered a mercurial ointment inunction applied as before on a sheet, the other treatment remaining the same with the exception of the quinine. In the course of twenty-four hours the patient's temperature fell to 37.7°C., he was much quieter, but retained his hallucinations and delusions. The following day a similar eruption made its appearance on the arms and trunk, which gradually formed flat pustules from twenty-five to forty millimetres square. These became covered with greenish-brown crusts, which when removed showed a greyish-red ulceration beneath and were surrounded with a copper-colored areola. The delusions and hallucinations continued but with less vividness for the next two weeks, and by the time of the total disappearance of the eruption at the beginning of the third week, disappeared also, leaving the patient in a dazed condition (the "paralysis of energy" of the Germans). He remained relatively stationary for about two weeks, then gradually brightened up, and was discharged, totally recovered, four months after admission. A year and a half after, he was in excellent physical and mental health and looked much younger than he did when admitted to the asylum.

In addition to these there were two impure cases in which pre-existing mental disease was complicated by psychical symptoms produced by secondary syphilis.

The symptoms narrated do not agree with those laid down by Leubuscher, Albers, Englested and Gros, in that in none was there to be found any evidence of hypochondria nor the symptom syphilophobia; but after all, are these to be considered symptoms of syphilitic forms of insanity alone? Leidesdorf has suggested that these latter symptoms may arise in a purely psychical manner. I am fully of his opinion, and would account for the syphilophobia by the existence of a conscientiousness in the patient, who, conscious of his delinquencies, has probably lied about the manner in which he became infected, the lie becoming in his morbid condition part of himself, and being remembered, not as a lie, but as a means of accounting for the existence of syphilis in himself, the false nature of which, as time passes, is more and more lost sight of, and forms an easy transition to belief in the certainty of becoming infected in a similar way, and to a dread of the same. The hypochondria evidently arises from the indefinite malaise that secondary syphilis produces, and, in my opinion, is an intensification of a preëxisting tendency in this direction. Wille and Müller while giving the hypochondriac symptoms, also admit of a melancholic form which they clearly place among their first division of the psychoses. Cadell's case, while lasting much longer than mine, exhibits many similar features, the marked restlessness, etc. Mickle's suggestion that acute forms due to secondary syphilis resemble those produced by alcohol, is certainly in accordance with the cases I have given.

Mendel[1] has claimed that hereditary syphilis exerts a direct influence on the production of insanity and similar influences are claimed by Wilkes[2] and Clouston.[3] Luys[4] claims that syphilis produces true progressive paresis and also the form of progressive paresis which Fournier[5] calls pseudo-general paralysis and which he, Mauriac[6] and others claim is clearly distinguishable from the ordinary forms. This I have never been able to do. The clearly syphilitic paresis aside from its longer duration was identical with the ordinary paresis. Drysdale[1] is inclined to believe that tertiary syphilis produces mania, melancholia and dementia. His objections to the claims respecting its influence in the production of progressive paresis are not well put. In 1857 Esmarch and Jessen claimed that syphilis was a great cause of progressive paresis and their conclusions were supported by Steenberg, Kjellberg,[2] Sandberg and Jesperse.[2]

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[1] Annales Medico Psychologiques, 1870, tome 1, p. 156.
[2] Journal of Mental Science, 1876.
[3] Ibid, 1877.
[4] Op. cit., page 258.
[5] Progress Medical, 1878.
[6] Gazette Hebdomadaire, April, 1876.

Ball[3] describes three forms of insanity as due to tertiary syphilis: First. A variety of dementia. Second. Syphilitic insanity or mania. Third. A variety of progressive paresis. Schüle[4] has reported cases tending to support the position taken by Ball, and similar cases have been reported by Hughes,[5] Ford,[6] Dreer,[7] Henry[8] and others.

Rheumatism since the days of Sydenham[9] has been recognized as capable of producing psychic disturbances. The first, however, to call special attention to the relations of rheumatism to the psychoses was Griesinger,[10] who found that rheumatism produced not only an acute but also a chronic form of insanity; that this was unattended by fever and characterized by depression amounting sometimes almost to melancholia attonita, followed by or alternated with maniacal excitement, and that at times choreic movements were present, prognosis being most favorable in the acute cases. Fleming[11] has expressed very similar opinions.

Skae[12] claims to have noticed in 1845 a case of insanity, due to rheumatism, which presented the following phenomena: The patient was at first delirious, then passed into a condition of melancholia attonita, then became violent, and after calming down expressed ungrounded suspicions. In other cases chorea was present, as also hallucinations of taste and touch. Skae regards the psychoses from rheumatism as being about as well defined as progressive paresis, and as having a favorable prognosis.

Mesnet,[1] was the first to use the term rheumatismal insanity, giving under that head cases very similar to those of Griesinger. Delioux,[2] from one case much resembling Skae's, draws conclusions very similar to those of that author. Trousseau[3] divides the cerebral complications of rheumatism into delirious, meningitic, hydrocephalic and apoplectic, claiming that hereditary predisposition is always present. Simon[4] draws about the same conclusion regarding the rheumatismal psychoses as Griesinger. Sander[5] cites Griesinger's conclusions as expressing his own views, and gives, in addition, several cases where rheumatism has led to apparent recovery from insanity. Wille[6] comes to substantially the same conclusions as Sander, citing, in addition, a case where disappearance of the rheumatic fever was followed by a change in the psychical symptoms. Besser[7] expresses about the same opinions, as also does Girard.[8]

Kräpelin,[9] who has made a very careful examination of sixty-three cases of insanity due to rheumatism, claims that at certain seasons cerebral complications of rheumatism are more frequent, so that cases may accumulate in a short period, although unknown for a long time before (they are said by Rigler to be more frequent in Turkey), and that rheumatismal insanity is divisible into the following classes: First. The hyperpyretic form, the most acute variety, the initial symptoms of which are insomnia, talking in sleep, slight delirium, followed by severe delirium later; after a rise in the temperature death results; with continued rise in the temperature the prognosis is bad, only eighteen per cent. recovering; the disease is sometimes complicated by facial spasm. Second. Less acute delirious case occurring during the first week of the disease, rarely during the second week; usually comes on with maniacal excitement at times, though rarely with melancholic frenzy; collapse or death occurs in over one-half the cases. Choreic complications occurred in a few cases. Three cases recovered after spontaneous epistaxis. Third. A form which requires for its production, in addition to the exciting cause, rheumatism, certain predisposing causes, anæmia, alcohol or heredity.

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[1] British Medical Journal, September 4, 1879.
[2] Hospitals Tidende, No. 34, 1876.
[3] Bulletin de la Societé de Médecine de Gand, July, 1882.
[4] Allgemeine Zeitschrift für Psychiatrie, 1872.
[5] Alienist and Neurologist, April, 1883.
[6] Journal of Insanity, 1874-75.
[7] Archivio Italiano per la Malattie Nervoss, 1868.
[8] Archives of Dermatology and Syphilis, 1874.
[9] Opera omnia.
[10] Op. cit.
[11] Die Psychosen.
[12] Journal of Mental Science, vol. xx.

[1] Archives Générales de Médecine, v. serie 7, I, p. 111.
[2] Archives Générales de Médecine, v. serie 9, I.
[3] Clinical Medécine.
[4] Archiv. für Psychiatrie, 1875.
[5] Allgemeine Zeitschrift für Psychiatrie, Band xiii.
[6] Allgemeine Zeitschrift für Psychiatrie, Bd. xxiii, p. 103.
[7] Allgemeine Zeitschrift für Psychiatrie, Bd. xxiii, p. 252.
[8] Du Delire Rheumatismale.
[9] Archiv. für Psychiatrie, Bd. xi, H. 2, 1880.

This form is divisible into two great symptomatological groups. I. Active melancholia, with fright and suicidal tendencies, sometimes accompanied with choreic movements and vertigo. The prognosis is not very favorable. II. The other symptomatological group lasts three or four months, presenting symptoms of confusion with depression, sometimes chorea and sitophobia, alway hallucinations. Four cases recovered; one died.

Vaillard,[1] Guislain,[2] Clouston,[3] Pauli,[4] Posner,[5] Meissner[6] and Kelp[7] describe cases of melancholia attonita due to rheumatism. Voisin[8] Ferrus,[9] Ball,[10] Leloutre,[11] Christian,[12] Laveran,[13] Contesse,[14] and Jaccoud[15] cite cases of progressive paresis due to rheumatism. From the predominance of opinion among the authorities cited, it would appear that rheumatism does give rise to psychoses; that these are usually of a depressing type, but that, according to some, progressive paresis is produced by the disease.

The cases coming under my observation, were divisible into two classes: First, those of an acute type ending in either recovery, death or slight dementia. Secondly, those which culminated in progressive paresis.

The first corresponded in some respects to Kräpilin's acute hyperpyretic form, but resembled most his second variety. In their length and the presence of hallucinations, they approximate Kräpilin's third group, as they also do in the presence of heredity and alcohol as predisposing causes. The cases were too few to draw any conclusion as to the influence of age. One observation of Kräpilin, that diseases of the heart produced peculiar effects on the delusions, was apparently corroborated by one case, where the existence of cardiac lesion was accompanied with delusions of poisoning. The cases, however, taken as a whole, could not be said to completely corroborate either Griesinger, Sander, Fleming, Skae or Kräpilin, although more nearly agreeing with the last mentioned.

Some of my cases corroborated Greisinger, Fleming and Kräpilin to the extent of showing that rheumatism may give rise to chronic types of insanity, but in their earlier stages most resembled Skae's cases. In their conclusion they agreed most with Jaccoud's and Voisin's opinions. At the same time, the infrequency of chorea and the strongly-marked systematized delusions of persecution gave them characters not hitherto described as existing in insanity from rheumatism.

The influence of gout in the production of insanity was studied by Sydenham. Berthier[1] comes to the following conclusions respecting the influence of gout in the production of insanity: First, if gout has a marked action on the mind of its victims and a special predilection for the nerves, it may become the source of every kind of neurosis; second, the psycho-neuroses dependent upon gout are sometimes metastatic and alternating, and sometimes related to a specific condition, disposing the system to a latent or larval resonia. Gouty insanity may arise from fixed or anomalous gout. Sometimes the gouty symptoms disappear and the insanity passes into incurable dementia. Bucknill and Tuke[2] mention symptoms of depression as arising from gout. Skae[3] reports cases due to oxaluria, the chief characteristic of which was depression.

LECTURE IX.—ETIOLOGY, TRAUMATISM AND INSOLATION—HEAT AND COLD.

The forms of insanity due to both the first causes cited are included by Skae[4] under "traumatic insanity," concerning which he concludes that, first, traumatic insanity is generally characterized at the commencement by maniacal excitement, varying in intensity and character; second, the excitement is succeeded by a chronic condition, often lasting many years, when the patient is ***irritable***, ***suspicious***, and ***dangerous*** to others; third, in many such cases distinct homicidal impulses exist; fourth, the characteristic delusions of this form of insanity are those of ***pride***, ***self-esteem*** and suspicion, melancholia being but rarely present; fifth, this form is rarely recovered from, and has a tendency to pass into dementia and terminate fatally by brain disease; sixth, that the symptoms, progress and termination of this insanity are sufficiently distinctive and characteristic to enable it to be considered as a distinct type of the disease.

I can not from my own experience agree with this last conclusion, and I am supported in this opinion by the cases reported by

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[1] Gazette Hebdomadaire.
[2] Sur les Phrenopathies.
[3] Journal of Mental Science, xvi.
[4] Irrenfreund, xx.
[5] Allgemeine Med. Central Zeitung, xxviii, p. 225.
[6] Schmidt's Jahrbücher, 1867, p. 43.
[7] Deutsches Archiv. für klinische Medicin, 1875, p. 599; Irrenfreund, xxii.
[8] Paralysie Génerale des Alienés.
[9] Cited by Voisin.
[10] Thése d'agrégation, 1866.
[11] Thése de Paris, 1866.
[12] Archives Générale de Médecine, 1873.
[13] L'Union Médicale, 1878.
[14] Cited by Voisin.
[15] Thèse de Paris, 1860.

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[1] Annales Medico-Psychologique, 1869.
[2] Psychological Medicine.
[3] Op. cit.
[4] Op. cit.

Baillarger[1], Voisin[2], Griesinger[3], Ellis,[4] Moreau[5] Bucknill and Tuke[6], Lacassagne[7], Maltiere[8], Verity[9], Azam,[10] Krafft-Ebing[11] and Vallon, which vary markedly.

Traumatism is a very frequently-cited cause of the psychoses, but many of these are cases which traumatism complicates rather than produces. Voisin claims that[12] traumatism sometimes produces progressive paresis. Marce[13] says, concerning the psychoses produced by traumatism: "In the greater number of these patients the mental disease assumes an illy-defined form, offering irregular alternations of stupor, agitation, and imperfect lucidity, without systematized delirious ideas, but recovery is never complete, and the patient becomes progressively demented." Calmeil[13] and Lasègue[15] cite cases of patients who were attacked by epilepsy at puberty, after having sustained injuries to the skull in childhood, and became victims of progressive paresis at the age of fifty.

Krafft Ebing[16] classifies insanity from traumatism as it is: "First, the direct consequence of an accident; second, manifested later, the prodromus of disordered motor and sensory phenomena and change of character; third, preceded by a latent susceptibility (the result of the accident), which may be called an acquired predisposition, and which only requires an exciting cause to develop into insanity."

Crichton Brown[17] reports thirty-two cases of insanity from traumatism.

Bucknill and Tuke[18] report a case where a "fall on the back of the head" led to irritability, violence, and, finally, general paresis, and one case where a patient became emotional, irritable, and depressed, after a fall, and finally presented all the physical symptoms of progressive paresis, his memory remaining good.

Schläger[19] says that "of 500 cases of insanity, he found forty-nine resulting from injuries to the skull. In twenty-one of these the injury was followed by immediate loss of consciousness, in sixteen by simple mental confusion and wandering of the thoughts, in sixteen by dull pain in the head. In nineteen cases the disease, insanity, commenced within one year after the accident; the other cases after an interval of from four to ten years after the accident. Generally the patients manifested from the time of the injury a tendency to cerebral congestion, after the ingestion of even a small amount of spirits, or, metal excitement. In several cases ocular hyperæsthesia and even amblyopia made its appearance. In fifteen cases there appeared, shortly before and during the existence of the cerebral disorder, scotomic dots, which exerted a decided influence on the character of the delirium. The patient often experienced ringing and noises in the ears. In eighteen cases there was dulness of hearing; in three, abnormal subjective perceptions of smell, and changes in the pupils. Frequently the character and disposition changed. In twenty cases great irascibility and an angry, passionate manner, even to the most violent outbursts of temper, was remarked. Sometimes, but far less frequently, there occurred over-estimation of self, prodigality, restlessness and disquietude. In fourteen cases there were attempts at suicide, and frequent loss of memory and confusion. The prognosis in all was unfavorable; seven became progressively paretic. Esquirol[1] and Rush[2] cite cases of mania produced by an injury. Meyer[3] reports a case which manifested delusions of suspicion after being struck on the head by a large weight. The patient ultimately became paretic. Baillarge[4] reports a similar case.

My own cases, forty-five in number out of a gross total of twenty-two hundred cases of insanity, a smaller percentage than that of Schläger, are as follows:

Epileptic dementia, ten cases; epileptic mania ending in paresis, twelve cases; secondary monomania with depressing delusions, eight cases; secondary monomania with depressing delusions ending in progressive paresis, ten cases; acute mania, ultimate history not known, two cases; acute mania ending in paresis, two cases; melancholia attonita, one case.

The epileptic dements from traumatism

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[1] Maladies Mentales.
[2] Paralysie Générale des Alienés.
[3] Op. cit.
[4] Treatise on Insanity.
[5] Traité d' Alienation.
[6] Op. cit.
[7] Cited by Luys, op. cit.
[8] Lyon Medical, No. 14, 1881, p. 485.
[9] American Journal of Neurology and Psychiatry, Vol. i.
[10] Archives Générales de Médecine, February and March, 1881.
[11] Lehrbuch der Psychiatrie.
[12] Op. cit.
[13] Maladies Mentales.
[14] La Paralysie chez les Aliénés, p. 250.
[15] Cited by Voisin, op. cit.
[16] Lehrbuch der Psychiatrie.
[17] West Riding Lunatic Asylum Reports, vol. ii.
[18] Psychological Medicine.
[19] Zeitschrift der K. K. gesellschaft der Aerzte zu Wien, xiii, 1857, p. 454.

[1] Maladies Mentales.
[2] Disease of the Mind.
[3] Archiv. für Psychiatrie, Band II.
[4] Cited by Voisin, op. cit.

did not vary any from the ordinary epileptic dement, and therefore scarcely need extended notice. As a rule, this class of patients had sustained the injury between the ages of ten and twenty-five. Those of the second class had usually sustained the injury between the ages of twenty and thirty-five.

Slight traumatism and grave traumatism can best be shown in tabular form·

FORM OF INSANITY.	Slight traumatism.	Grave traumatism.	Total.
Epileptic dementia	2	8	10
Epileptic mania, ending in progressive paresis	4	8	12
Acute mania, ultimate history unknown	2		2
Acute mania, ending in progressive paresis	2		2
Melancholia attonita	1		1
Secondary monomania, with depressing delusions	6	2	8
Secondary monomania, ending in progressive paresis	8	2	10
	25	20	45

From this table it would appear as if the majority of cases had resulted from slight traumatism.

The cases produced by heat and insolation were, as a rule, cases marked by symptoms at one stage of monomania, at another of progressive paresis. One case of transitory insanity, due to this cause, was observed. That alternate extremes of heat and cold produce insanity has been shown by Reich,[1] Brush,[2] Krafft-Ebing[3] and Schwartzer.[4] These were transitory in character. In a case reported by Ueding[5] an attempt at suicide by strangulation resulted in dementia.

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Typho-Malarial Fever at St. Ignace, Mich.

REMARKS BY DR. F. H. KNICKERBOCKER.

AFTER having observed, during the past year, about thirty cases of typho-malarial fever, perhaps a few remarks upon the disease as I have seen it may not be without some interest to the general practitioner. The disease has been prevalent throughout the whole lower portion of the Upper Peninsula for a year or more. What has been the cause? There are no cases now—the conditions for its continuance are, seemingly, becoming unfavorable—what were those conditions? I leave these questions for the reader to settle.

The disease has attacked individuals of any age from five to sixty. Hygienic surroundings have, seemingly, had little to do with its development. Individuals living in apparently healthful localities—remote from any seat of contagion—and drinking, presumably, pure, spring water, into which no disease germs could possibly find their way through the soil—have fallen victims to the disease. It is needless for me to speak of the character and general symptoms of the disease, as they are so well known. I shall only mention some symptoms that I have noticed, that are not usual in the disease, as it is ordinarily described.

As is not uncommon in typhoid fever, some cases, apparently mild, have proven fatal; while others, apparently hopeless, have suddenly joyed the hearts of their friends by cheating the undertaker.

The peculiarly "typhoid symptoms" have been marked in every case. The nervous symptoms, as a rule, have been unusually prominent. There has been more or less delirium manifest in every case—sometimes slight, sometimes exceedingly violent. In two cases—one of which was fatal—convulsions of an epileptiform character occurred during the latter stage of the disease. "Picking at the bed-clothes" has been a very common symptom, even in the milder cases.

Hæmorrhage from the bowels has taken place in a majority of instances—sometimes scarcely noticeable, sometimes exceedingly profuse. The skin has, in most cases, been dry and hot, but not constantly so, and profuse and nearly constant perspiration has, in a few cases, been a prominent and disagreeable symptom. As a rule, the urine has been scanty and high-colored, and, in a few cases, retention of urine has been a distressing symptom, necessitating the use of the catheter for days or even a week or two at a time. The pulse was rapid in nearly every instance, sometimes out of all proportion to the height of the temperature. In the more serious cases the pulse became very rapid, feeble and irregular, and, except in one instance where hemorrhage was the immediate cause of death, patients who died seemed to die from a gradual failure of the heart. The temperature rarely went above 104° and ran a very irregular course, as is usual in typho-malarial fever. The disease invariably continued at least to the end of the traditional four weeks and the defervescence was always by lysis.

As to the most appropriate mode which I have found of managing and treating this class of cases I shall say a few words, because

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[1] Berliner Klinische Wochenschrift, No. 8, 1881.

[2] American Journal of Insanity, 1882-83.

[3] Lehrbuch der Psychiatrie.

[4] Die Transitorische Tobsucht.

[5] Magazin für die Staatsarzneikunke, I, 1842.

I can speak from personal experience and observation. Clinical observations, however meagre, are more valuable than theorizing.

Our main dependence in the treatment and management of these cases must ever be upon the stomach. The stomach should, therefore, be watched carefully and treated very tenderly. Nourishment should be given at frequent intervals and in small quantities. Milk has been lauded as the thing to give in the way of nourishment in these fevers. But, it cannot be depended upon in all cases and should not be given in a routine way. In at least half of my cases milk was illy borne and some other form of nutriment had to be substituted. Nothing will cause so many alarming symptoms in these cases as some undigested substance irritating the stomach. Even during convalescence a little carelessness in regard to feeding may produce very severe symptoms for days it may be. Many cases of so-called relapse are nothing but instances of this kind. When milk is given, therefore, in these cases, it must be carefully watched. Beef tea, as a rule, is well borne if it be properly made. Water should be given often if none of the more nutritious fluids can be borne in sufficient quantities, for large quantities of fluids are, no doubt, beneficial in these cases. Patients will not always call for drinks; they should be aroused from time to time and fluids administered. Solid food should be strictly forbidden. A bowl of cracked ice should be kept constantly at the bed-side, and it will be found not only to be deliciousness to the patient, but, taken occasionally, will prevent the uncomfortable dryness of the mouth and throat.

The entire surface of the body should be sponged with cool water three or four times a day throughout the whole course of the disease; and when the fever is high sponging should be performed every hour or two, and the temperature of the water be regulated according to the height of the fever.

In regard to medication: Alcohol is the remedy we could least afford to be without. It is the "sheet-anchor" in the treatment of this disease, and meets a variety of indications with the most astonishingly satisfactory results.

Except to meet some special indications, other medicines are not necessary in this disease. Quinine, unless for some special indication, is not only useless, but in the majority of cases it is worse than useless. It is apt to disarrange the function of the stomach and in this way disturb the whole economy. Given in antipyretic doses, it may in some cases, I think, occasion a very alarming or even fatal collapse. It affects, of course, different people in different ways. I noticed that where the patient was excitable, and nervous with a rapid pulse—even with the temperature at 103° or 104°—quinine in a dose or 20 to 25 grains in the evening produced an unpleasant effect. I think the circumstances when it might be useful in this disease, are rare indeed. It can not lessen the time which the disease will run. In my first cases I invariably used it, but I soon discovered its uselessness. On one occasion I gave a woman who was in the second week of the disease, with a temperature of 104°, excitable temperament, rapid pulse, 20 grains of quinine at night for its antipyretic action. I was called at three o'clock in the morning to find her cold and clammy, with a fluttering pulse, which was scarcely perceptible, pupils widely dilated, and temperature in the mouth 97½°, and it was only by the most prompt and energetic action that she was made to rally. The next day her fever was back again at about its previous height and ran its regular course. I attributed the alarming collapse to the effect of the quinine—at least in part—and since that time I have had two other cases where it produced similar effects of less severity, so that I think I am justified in my supposition that the quinine produced the unpleasant symptoms. I would discard it entirely in the treatment of this disease. Even admitting that it can do no harm, why give it? It certainly can produce no good.

Alcohol in some form should be given throughout the course of the disease. I think its merits are not appreciated, or it would be given more. Nothing will control the nervous symptoms like alcohol. It keeps the mind clear. When there is great tremor, a large dose of alcohol will quiet it, as nothing else can, and will not affect the mind in the least. It may be given in doses of from one to three ounces every two to four hours to a weak, exhausted woman, in this disease, with the most pleasing effects. If there be wakefulness, it will produce refreshing sleep. If there be muttering delirium, it will tend to quiet it and clear the mind. If there be tremor, it will quiet it like magic. To slow the heart's action and steady the beats, there is nothing like it. Digitalis has a bad effect in these cases.

To meet special symptoms, of course there are other medicines that it is necessary to employ. If there be a tendency to constipation, the juice of an orange once or twice a day will control it admirably, while being very grateful to the patient. For nausea, small lumps of ice will usually suffice. For diarrhœa, bismuth by the mouth and tr. opii by the rectum—never by the mouth, because it will disturb the stomach more in that way. If there be hæmorrhage, I find that bismuth sub. nit., gallic acid and turpentine, by the mouth, and opium in full doses by the rectum, answer as well as anything, though I should not fail to mention the benefit obtained by giving ice constantly at the same time. For tympanites, I am in the habit of prescribing an emulsion of turpentine with carbolic acid. For the profuse perspiration, I found that the old lady's remedy of "sage tea and vinegar," sponged over the surface occasionally, answered the purpose better than anything else that I tried. These medicines for special symptoms have only to be employed occasionally, and in some cases only. Alcohol is of use in every case and I cannot too strongly emphasize its value; for I know whereof I speak. I have, unfortunately, lost my records of some of the most interesting cases, so this paper contains my conclusions simply, which will account for some of its dogmatic assertions.

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[A poem read at the meeting of the N. C. O. Medical Association at Mansfield, O., December 27th, 1882.]

The Ontario Rat.

BY R. F. WARK, M. D.

In the town of Ontario once dwelt a rat,
Who was moral and upright and fearful of cat.
'Neath a stable retired from the noise of the town
A regular old, roofless, half tumble down—
He had dug out his parlor and furnished his kitchen,
Where his neighbors were daily invited to pitch in;
For our rat was no miser, but full of true jollity,
Believing in liberty, right and equality.
At his hoard he would labor from sunset till morn,
And share with his fellows his last grain of corn,
Which is better than some folks, as sure as you're born!

This rat whom, for short, we will have to call John,
In seasons of plenty with ease could get on;
But some of his friends to his mighty vexation
Had labored to triple the rat population;
(While he, an old bachelor, quiet and good,
Had struggled alone for his home and his food)
The rats had increased and the corn given out,
Till a Kansas-like famine was coming about,
And all chances of fattening were gone up the spout

Now, as food became scarce in his underground run,
John took to the daylight beneath the bright sun,
And found, it was easier to get things by far,
Than to hunt by the light of the moon or a star;
But little he thought of the dangers around,
Till one day he was scared by a thundering sound;
Not the snap of a trap, not the growl of a cat,
But an old rusty pistol had blown Johnny rat;
He was dazed by the flash, he was sprinkled with hail,
And a vertebra crushed in his elegant tail;
No wonder that Johnnie sneaked home and turned pale.

When once safe at home all his sisters and cousins
Came running and squealing by couples and dozens;
The whole of them sympathized deeply, some blubbered,
While some with more thrift robbed his pantry and cupboard ;
But on one point most heartily each one agreed:
That is, that the wound was most shocking indeed;
And some of the grandmothers mounted their specs,
For a fair diagnosis of Johnnie's annex;
With more zeal than prudence each one would propose
Some sure panacea for Johnnie's sad woes.
So while they disputed o'er lotions or clay,
Each lady determined to have her own way,
Poor John lost his courage and fainted away!

O, send for the doctor, it beats our control;
And the nurses officious each fled to her hole.
Rats follow the customs of men to the letter:
Send for help when they find they can't do any better;
And the moment they're able to find their own pickins
The doctor and service can go to the dickens.

The village had rat doctors just half a score,
And doctors prospective a half dozen more;
And each had his friends, for the whole rat society,
Like their human congeners, delight in variety;
Send for Gnaw, send for Nip, send for Bite, send for Scratchem
Send for Sugar, for Bitter, for Steamer, for Patchem.
As John was a rich rat and knew not his choice,
They sent for them all, no dissentient voice
And Garfield himself was not better attended
Than Ontario John with a tail to be mended;
In fact, sirs, his medical staff was just splendid!

When the doctors arrived there was trouble enough;
Who should manage the case, who should take a rebuff,
Who was oldest in practice, who had the most skill,
Who handled the knife best, who made the best pill;
One had the most friends and one had the big pile,
Another was fine-haired and had the nice style,
While another had friends who thought he should prevail
On account of his manner in holding his tail,
While others gave réasons too numerous to mention.
But John thought 'twas *his* tail demanded attention.

The first to examine was old Dr. Gnaw;
He found the coccygeus longus quite raw,
And vertebara tailibus quintus or six
In a fearfully bad pathological fix.
Then quickly spoke Nip to the dignified Gnaw,
'Tis a strange kind of inference, doctor, you draw;
If you can't make out clearly which number is gone,
Just give up the case and let me attend John;
I should be the most miserable rodent alive
If not able distinctly to tell six from five;
It's vertebra five, sir the sign never fails,
Just the second beyond where the hair turns to scales.
Then Bite, who was friendly to old Dr. Gnaw,
And considered young Nip both presumptuous and raw,
With great indignation responded at once:
Hair to scale never turns, you egregeous dunce.
Go back to your books, sir, and study your letters
Before you attempt to pick flaws in your betters;
For a hair is a hair and a scale is a scale,
And will be so as long as we carry a tail,
Which makes us superior to ground moles and bats;
A tail is the royal regalia of rats!
O, pshaw! rejoined Scratchem, this long disquisition
On rats' tails and bats' tail don't change the condition
Of our much beloved patient, a personal friend,
On whom with delight I should like to attend.
Don't you think, replied Bitter, you might as well mention
These facts when the patient desires your attention.
Then Sugar spoke out "all this fuss and digression
Is not for the good of our honored profession."
And Steamer and Patchem responded "that's how!"
We take charge of the case, sirs, and quiet the row.
The students stood round, not in group or in row,
And played non-committal, or tried to do so,
Deftly twisting their tails into elegant curls
To the great admiration of all the rat girls.

It was settled at last by his sisters and brothers,
Aunts, uncles and cousins, the neighbors and others,
That, as John had the cash, every doctor should try
For a single day only to fix him up spry,
But no amputation, for even if best
That would cut off all chances of trying the rest.

Then at it they went and I cannot delay
To detail all the treatment of day after day.
On one he was frozen, the next he was boiled,
Till his beautiful caudex was woefully spoiled;
Through poultice and cautery and lotion it passed,
Till it dropped in the paws of a student at last,
Like a dry hickory twig in the chill autumn blast.

PART II.

The rat doctors all of the neighboring region
Whose learning is vast and whose number is legion
Assemble at times in a stately society,
Where matters of interest in endless variety
Are wisely discussed and the very bad cases
To clinic are brought from the neighboring places.
Now matters so happened that Johnnie was able
When society met 'neath the Wiler House stable
To be there at the clinic presenting his case,
With a good bit of pain and a very shame face;
For 'twas hard on his feelings, it must be allowed,
To appear with a stump in so toney a crowd.
There was Highfly, professor in rodent Vassar,
In literature gorgeous, in science a star;
With Mikron, whose eye differentiates scales
From the very tip feathers of green midges' tails;
With the great Didelphoides Giganteus Ossium,
In truth a large rat, in appearance a possum;
With many more worthies we can't even mention,
Lest we waste too much time and distract your attention.

Very soon on a cheese-box poor Johnnie was set,
A badly scared rodent, now, don't you forget;
And first one professor would give him a pluck,
While another one gravely would punch him for luck;
Some rapped on his teeth, others squinted his tongue,
Others twisted his stump, just to see how it swung;
While others more cautious, leaned back on their dignity,
Looked round and sang dumb, with the greatest benignity.
Then the great Didelphoides cleaned out his vast throat,
And spoke right to the point, without comment or note;
"Our friend hath a lesion, not fatal indeed,
But an esthetic blot on the whole rodent breed;
And I therefore propose that if he hath a friend,
Either female or male that will willingly lend
One-half of a caudex; I'll fix him up nice,
With a member more lengthy than common-sized mice
Or ground moles can carry,
And if it's a female, why then let them marry;
And being one flesh no disputes will prevail,
As to which one has most of the family tail."

Then Mikron rose smiling, and with an apology,
For speaking at all, said he thought the histology
Of tails and their tissues without variation,
Would surely preclude the proposed operation;
"For the efferent nerves of the newly-made tail
Would then become afferent nerves without fail;
And the scales epithelial will stand the wrong way,
And catch on the stems as he crawls through the hay;
Another objection, if scared by a cat,
The tail might run backwards, betraying the rat."

Professor Highfly, with a tone cool as ice,
Said for his part he had but small faith in a splice;
As so many conditions of science and skill
Were needed, the true indications to fill;
And the fact that the patients would have to keep still,
So long that their health might be ruined thereby;
Or from double pyemia, both patients might die.
"Dismiss from your minds, sirs, this whole plastic scheme,
As a visionless fabric, a gasiform dream;
And John, sir, be thankful no worse thing was sent,
And just as you are live a life of content;
Your mind is as clear and your squeal is as strong
As though your lost caudex were twelve inches long."
But suddenly changing his gesture and tone,
"I don't just like the look of that exserted bone."
"Learned rats, by permission if you are agreed,
I propose what will be just the thing for his need;
I can finish him off with a neat mansard rump,
By a flap operation performed on his stump!"

Professor Carbolikus fain would remark,
That the traumatized tissues look sloughy and dark;
And no difference what is or how it is done,
He will have to be Listerized in the long run;
For our homes are too dark and our parlors too dusty,
To keep things from getting both rotten and musty;
And Bacteria by millions will crowd to the scene,
And finish the case by traumatic gangrene!

Professor Von Linen said "he should suppose
That *thusly* was not necessarily *those*;
And the two operations might both be performed,
Or either rejected, as he was informed;
That for his part he counseled them all as a friend,
To commence on the case with the proximal end.
The superior border kept well to the right,
The inferior turned with professional sleight;
Every fold be made neatly no slouching, no twist,
Each was slightly drawn by a turn of the wrist;
Yes, yes,
When to bandage the tail of a rat you intend;
Be sure of your distal and proximal end!"

Professor La Coolem said "he did not care
For tissues or vertebræ, sinews or hair;
But made it an almost unvarying rule,
With arnica lotions to keep the parts cool;
And if any Bacteria an entrance should seek,
Kill them deader than Moses with phenol sodique;
To select operations he felt very loth,
Perhaps for a test you had better make both."

"Order, order," and "question," began to be heard,
For the doctors grew tired of this trifling absurd;
And the president spoke with a dignified pride,
"We've debated enough, let us try to decide;
A committee of three we'll appoint to examine"—
But just then a kitten, a playful young gamin,
Poked his head through a hole in the floor of the stable;
And each disputant vanished, soon as he was able,
Some traveled clear home, others sought the first cover,
And the rat doctors conclave was quiet and over.
So death among men, like the cat among rats,
Breaks up disputations and settles all spats.

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Two Fatal Cases.

BY T. C. SMITH, AURORA, IND.

THESE cases were not of unusual interest, except for their immediate causes of death. The first was an old lady, 56 years of age, with the following brief history: She had been strong when young; had borne five or six children; had at least one very severe attack of acute inflammatory rheumatism, and several attacks of fever or severe illness. When I saw her in December, 1882, she had been laboring for three days under a severe attack of pneumonia, involving all the right lung and a section of the lower lobe of the left. The pulse was distinctly intermittent, and 80 per minute, fairly strong. Ausculation developed the presence of left ventricular hypertrophy and valvular insufficiency. Her dyspnœa was very distressing; cough was constant—hard, dry, ringing cough. I will only stop now to say she was treated with stimulants, tonics and anodynes internally. Among the agents chiefly brought into requisition were ammon. carb., quinine, whisky, morphine. Others were used as minor points demanded them. Externally a large meal poultice; finally a large blister; afterwards oiled soft linen covered by a light moist hop poultice.

At the critical hour of the pneumonia she was seen by Dr. W. C. Henry, with me.

After the eighth day she gave a favorable prospect of recovery. This continued up to the fourteenth day, by which time there was every observable symptom of completing a speedy convalescence. Just at that time she was seized with a most agonizing pain in the left foot and leg. I saw her two or three hours later. Found the foot exceedingly tender, very cold, and seemingly quite blood less. At first I was disposed to believe I had a severe case of sciatica, as she had been afflicted with it before; but a little thought of its real present symptoms convinced me later that the case had every condition and symptom to establish it as one of embolism of the left femoral artery. Doubtless a clot of vegetation from the heart had been thrown into the blood current sufficient in volume to occlude that artery and cause all the symptoms present. She lived to the twenty-first day after the first attack and seven after the embolism occurred. The foot first became gangrenous, and finally the leg and lower third of the thigh. An autopsy was not obtained, though greatly desired. How much influence did the use of ammonia in her treatment have in causing this condition of embolism by causing cardiac vegetations to loosen their hold on the heart walls or valves?

The other case was one of severe pneumonia in a male child, quite three years old. He was a strong, robust fellow, tough and healthy. His pneumonic symptoms were very severe, but I expected recovery, and should certainly have had that result but for an accidental complication. I had deemed a blister necessary about the fourth day, and applied it over the upper part of the chest, 2x3. This filled well, and the child seemed to be greatly relieved, and recovery was now quite within full expectation. On the morning of the sixth day a gangrenous spot was observed in the central part of the blistered field. On the next morning a spot of gangrene was found on the second finger of the left hand near the last phalangeal joint. That evening the elbow became greatly swollen, and a chain of enlarged glands could be traced to the axilla. The next day the parotid glands became involved, dark sordes were on the teeth, tongue and lips, frequent offensive alvine discharges soon put in an appearance, and also extensive meteorism, and finally death claimed its victim on the fourteenth day. If this case had not been blistered it might possibly have recovered. But of this I am by no means sure. In twenty years I have used the blister only in extreme cases of pneumonia, and almost invariably with good results and never with any serious sequences until in this case. I shall not cease to use it because of this untoward complication which it seemed so evidently to produce, and which I look upon as accidental. Of one thing I am thoroughly convinced, viz., that while emolients of various kinds—all tending to effect the same end—are very valuable in the pneumonia of children, yet in very severe cases nothing has in my hands proved so nearly uniformly beneficial as a large blister in relieving the congested or engorged condition of the pulmonary tissue. One—possibly hereditary—tendency in this case may have determined the attack of gangrene, or may not. The father informed me that he himself had been the subject of several attacks of erysipelas. Had this paternal tendency any influence or power to cause a condition in this child favorable to gangrene or to low and destructive forms of inflammation?

Proceedings of Societies.

Proceedings of the Wayne County Medical Society.

DETROIT, May 3d, 1883.

The Wayne County Medical Society convened this evening in regular session, at its rooms in Detroit, with the president, Dr. Brodie in the chair.

Dr. Lundy requested that the minutes of the last regular meeting be corrected so that his remarks on diphtheria read, when seen early and properly treated, from one-half to two thirds of the patients recover.

Dr F. W. Owen being called away Dr. J. J. Mulheron read for him a paper on

KNOTTING OF THE UMBILICAL CORD.

MR. PRESIDENT AND GENTLEMEN OF THE WAYNE COUNTY MEDICAL SOCIETY.—At the last session of this society it fell to my humble self at the request of our honored president to prepare a paper upon a subject with which I was almost entirely unacquainted, and owing to the scarcity or inaccessibility of literature on the subject I was driven to the expedient of making experiments the results of which together with the deductions naturally arising therefrom I will endeavor to set before you in the briefest possible space.

Knotting of the umbilical cord: causes and favoring circumstances and the dangers which might arise from this curious accident or series of accidents if the knots happen to number more than one. The several questions involved in the consideration of this *tangled* subject will be best considered if taken in detail, and we will discuss first this proposition, viz., what conditions are necessary for formation of knots on the cord? Other circumstances may favor the process, but to my mind two conditions are possibly essential, they are: 1st, an unusually long cord, and 2d, freedom of motion for the fœtus within the amnionic cavity. With a cord of the average length and a fœtus of average size and development, I think it practically impossible for the fœtus to pass through a loop in the cord in such a manner as to produce the knot in question, which is known to sailors as a half hitch, and my disbelief is greatly strengthened by an experiment which is, briefly, as follows:

In my possession and classed as personal property is a fœtus which came into the world at about the end of the fifth month following impregnation: fœtus and placenta all came away together leaving the cord and its attachments intact. I tried to tie knots in this cord by passing the fœtus through a loop in the cord, but failed utterly although the entire available length of the cord was used in making the loop. If this cord was of the usual length and proportioned normally to the age and development of the fœtus it would seem to be proven that at the age of five months knotting of the cord must be unusual if not impossible. Cazeau in his work on midwifery, says, as does also Gray's Anatomy, that the growth of the umbilical cord is nearly in proportion to the growth and development of the fœtus. If this be true then I find it difficult to conceive how it would be possible for the fœtus to pass through a loop of the cord at any period of its intra-uterine existence. But the question may be raised whether this particular cord was not unusually short; to this objection I reply with a calculation based upon the relatively equal growth and development of the fœtus and cord, thus reducing the matter to a question of inches. This fœtus measures 9½ inches and the cord 11 inches.

Referring to Leishman we find this statement "On the birth of the child at the termination of pregnancy it (the child) will be found to measure 19 to 24 inches," and in another place regarding the length of the cord he says, "The average length of the cord at birth may be assumed to be about 20 inches." Now taking 19 inches as the probable length of our infant at birth, the problem stands thus: 9½:19::11: x, or the length of the mature fœtal cord; the solution of this gives us 22 inches as the probable length of this cord, had pregnancy gone on to full term. Hence I feel safe in making the general statement that, with a cord of the average length, knotting is impossible at any period subsequent to the fifth month. As to the possibilities of knotting previous to this period, I have neither facts nor theories regarding the matter, and will say nothing about it, but will leave it for discussion by heads more able and wiser than mine.

Wishing to learn something regarding the length of cord involved in one of these knots, I took a soft rubber tube, ⅜ of an inch in diameter, knotted it firmly without, at the same time interfering with the free passage of a stream of water through it, marked with a pencil each side of the knot, straighted out the tube and measured between the marks. Somewhat to my surprise the tape ruled off 6½ inches as the length of tube required in making one knot. Having had no recent opportunity of applying the above test to a fresh umbilical cord, I give the rubber tube experiment for what it is worth.

There is one other condition almost equally necessary with a long cord, in the production of these knots, viz., free motion of the fœtus within the amnionic cavity, and I will simply make the assertion that free motion can be obtained in only one way, and that is by suspending the fœtus in a comparatively large quantity of ammotic or other fluid. Having a long cord, and a large quantity of fluid surrounding the fœtus, it only remains to impart motion to the fœtus and float it through a large loop in the cord; and this motion we can easily get either from the exertions of the mother or the movements of the child after quickening.

A few words in regard to the possible dangers to the life of the child, which might result from this condition: I will simply make this statement and leave it with others to prove its truth or falsity, and that is: that there is, comparatively speaking, no danger during intra-uterine life up to the beginning of the second stage of labor.

During the second stage, with one or more knots on the cord, there would undoubtedly be danger of injurious compression upon the umbilical arteries and vein composing it, if the cord should become wound about the neck of the child, or about the feet or body, in such a manner as to greatly shorten and thus produce dragging upon the cord at each contraction of the uterus. In this way the knot would be made tense; the circulation would be cut off, with fatal results to the child, unless delivery or reposition of the cord be speedily effected.

Dr. James Y. Simpson, in his work on Obstetrics, referring to the frequency of coiling of the cord about the child, says (pp. 95 and 96, part ii,) "That, according to Dr. Churchill, the cord was found coiled about the neck and limbs in 174 cases out of 1,271 labors, or about one in seven cases, and out of 1,417 labors among the patients of the Edinburgh Maternity Hospital, the cord was twisted about the child's neck once, twice, or oftener, in 164 instances, or one in every eight cases; and in 327 cases of labor in the same hospital, in which the length of the cord was noted, he says (p. 749, part i,) the shortest cord measured 12 inches in length, and the longest 43 inches, the average being 23½."

Dr. Bedford's work on Obstetrics has the following on knots (p. 252): "You will sometimes recognize knotted cords, *i. e.*, there will be observed in the extent of the funis one or several knots, and these are more particularly noticed in cases in which the cord exceeds its usual length. It is supposed that this latter circumstance, together with the movements of the fœtus, predisposes to the formation of these knots. In no instance have I known them to interrupt the circulation between the mother and child."

Playfair says the knots must undoubtedly be formed when the fœtus is very small.

The following is quoted from a work by Dr. Elliott, called the Obstetric Clinic, page 408—"Knots on the Cord": "Several of these cases have come under observation, but I do not remember that they were a cause of death in any other case than that of a premature fœtus of about three months. In this case the cord was drawn in a tight knot between the fœtus and placenta, which was, in the opinion of Dr. Gourly and others, as well as myself, the cause of death."

Dr. Mulheron: Was much pleased with the paper, which demonstrates the impossibility of knots forming in the cord after a certain period of gestation. In his experience knots had been seen in cords of average length, rather than in those of great length. These knots are probably formed by movements of the child. He saw a cord some time ago forty-four inches long, in which there was no knot. Portions of children have been amputated in utero.

Dr. Clarke: Knots may be formed in the cord during the second stage of labor by the cord, which has been folded around the neck, being slipped over the body instead of the head, provided the portion of the cord attached to the placenta be beneath that attached to the child. This was illustrated by means of a string. He saw one case in which the cord was around the neck. After delivery a knot was found in the cord

Dr. Chapin: In some cases the cord becomes twisted so as to impede circulation, and knots are liable to be drawn tightly when the cord is short.

Dr. Rouse: Injury to the cord from pressure due to knots in the funis is probably very rare. There were no indications of injury to the cord at the location of the knots in the specimen presented at the last meeting of the society. Amputations in utero by the pressure of the cord about a portion of the fœtus, is said to occur. Attended a woman who aborted at about the third month, where this head was separated from the body.

Dr. Clarke: Reported a case in which a man now had a constriction about one leg and one little finger. They were noticed at time of birth and were believed to be due to pressure of the cord about the parts. The usefulness of these members was much impaired.

Dr. Lyster: Saw a babe with the fingers of one hand shorter than those of the other. The deformity seemed to be due to constriction of membraneous bands. In other respects the child was normal. The child is now about five years old. He could probably bring it before the society.

On motion, Dr. Lyster was requested to bring this child to one of the meetings of the society.

The president was much pleased with the paper, and more especially because it was prepared by the youngest member of the society and a graduate of one of our youngest medical colleges.

The society tendered a vote of thanks to Dr. Owen for his interesting paper.

Dr. H. C. Wyman then read a paper on

"HYDROPHOBIA."

Synonyms.—Die Wasserzehenc, *Die Wuth*, German; *La Rage*, French; *Rabies Canina*, Latin; Homer in the Iliad, ix:23, uses *lissa.* for dog madness, and Good in his nosology proposes its re-introduction, and calls hydrophobia in the human subject, *entasia Lyssa*.

We will avoid pedantry by leaving the term as it now is.

Aristotle described rabies in animals, but was mistaken in saying that they did not communicate it to man. Distinct records of the disease exist from the earliest times. Hydrophobia means fear of water, and implies by the term that that fear is the characteristic of the disease; nevertheless mad dogs can and do look at, lick and drink water and other fluids. It is fear, and not the material that excites the fear, that is really the distinguishing feature. Caelius Aurelianus tells us the old writers used the term Ærphobia, or dread of air; and pantophobia, or fear of all things; the latter being a proper name for the disease. Ulysses, speaking of Teucer to Achilles, says: "So with furious Lyssa was he stung." Hector was often compared to a mad dog, but not with the object of conveying the idea that he was a sufferer from hydrophobia, but to indicate his fierceness and eagerness for battle.

Hydrophobia may be communicated by allowing dogs to lick wounds or abraded pimples on face, or by the bite of animals much excited, as during copulation, or when in heat. An old writer says that the bite of the bitch in heat is the most frequent source. Borynillon believed the disease to be caused by fear, pure and simple, and denied the existence of a specific poison.

But animals, *quibus non est intellectus*, have died of hydrophobia, and infants have been attacked by it. In opposition to the doctrine of virus, has been advanced the theory that the disease has its origin in continuous putrifaction in the bitten part. There is no doubt about the existence of the poison. Thirteen out of twenty-three persons bitten by a wolf died of hydrophobia. Idiosyncrasy exerts as important influence in this as in all zymotic diseases. Imagination may often induce the disease after an innocent bite.

Billroth says it may be carried from man to animals, and Magendie innoculated dogs with the saliva of man in the Hotel Dieu, the dogs subsequently dying of hydrophobia, but no case is known in which the disease has been carried from one man to another. Neither Magendie nor others could innoculate with blood (although the blood of the mad animal has been shown to be infected), but only with the saliva. Out of fifty dogs inoculated in Berlin, only one in five were attacked.

The bronchial mucous membrane has been proven, by Hartwig's experiments, to be the vehicle by which the poison is introduced into the system. The saliva, in this disease, is said to be unusually tenacious, and there is an active inflammation of the nerves and ganglia. The poison produces morbid action of the respiratory centres and of the pnuemogastric nerve.

There is no foundation in fact for the popular notion that this disease is most common in summer, as shown by the report of the Commissioner of Public Hygiene in France.

At the outbreak of hydrophobia the wound may be painful, be marked by itching and smarting, and thin pus may spread over the whole limb. If the wound has closed, the pain and itching may extend over the whole side, the scar inflame and break, the absorbent glands enlarge, and slight convulsions be developed in the part. This condition is not invariable. Aerleau holds that vesicles encircle the wound or scar when the attack comes, and contain a reddish or bluish fluid which can propagate the disease by inoculation.

The wound in hydrophobia, as well as the blood drawn from the veins has been known to stink most intolerably.

The wound generally heals without any unusual symptoms and then a period of incubation sets in, which may last from 7 to 14, 20 or 40 days, although several months, or even more time, may elapse after the bite before the appearance of the disease.

Galma knew a case which ran a year before the patient was attacked. The Duke of Richmond lost his life in Canada in 1819, his death being due, it was thought, to his having allowed a dog to lick a razor wound upon his face five years before. However, he was bitten in the thumb by a fox seven weeks before death. It is believed that from seven to twelve years have passed in some cases between inoculation and the manifestation of disease, while Trousseau says not more than from one to three months should elapse. In short, there is as great a variety of opinion on the length of the period of incubation as in most zymotic diseases.

As to the duration of the disease, most patients die on the second, third or fourth day, sometimes not until the sixth or seventh. Marochitti claimed that specific vesicles appeared from the fifth to the thirty-fourth day after the bite, if the disease developed. The under surface of the tongue of the bitten person should be carefully examined twice a day for six weeks. Wendt says that of 184 persons bitten and who received treatment, only two died weeks after of hydrophobia. Patermus knew of its being conveyed by a father to his children in the act of kissing. The disease has been known to return periodically during a period of two years. The bitten part usually forms the prelude to an attack. Brecius and Hildanus mention cases following a wound by a cock and by the scratch of a cat.

The temperature rises from 102° to 105° F., and the pulse is very rapid. Hydrophobia is a disease of the brain and intellectual faculties as well as the spinal cord. Tetanus bears some resemblance to it, and by some the two have been confounded. They may be distinguished, however, by the convulsions, those peculiar to tetanus being tonic in their character, while those of hydrophobia are clonic; also by the fact that in the former the mind is clear, delirium always being present in the latter. The infrequency of the disease has led physicians to ignore its existence, and the principles of its treatment.

In the fall of —— I was summoned to attend a young married man, 23 years of age. On my arrival I found him delirious, and it was necessary for his friends to hold him in bed. My examination seemed to cause him the greatest fear. His pulse was very rapid —140—and he was too nervous to allow me to take his temperature. There was constriction of the larynx and throat, and the saliva was profuse and constantly expectorated. During my visit the patient had several short periods of repose, each one followed by lesser paroxysms of convulsions. Attempted to give morphine in solution, which caused spasm of the throat. I then gave it hypodermically, but no good result followed. Could get nothing into the stomach, and was compelled to keep him under chloroform for three days.

This I believe to have been a true case of hydrophobia, as the patient had been bitten through the hand by a dog six months before; but at the time of my visit his friends made no mention of this fact. The dog was killed, but there was no history showing the animal was rabid at the time the wound was made. The young man never fully recovered, suffering severely from returns of the nervous paroxysm at intervals during the succeeding three years, and finally, about a year ago, died from exhaustion caused by these repeated attacks.

In this case the distinct attack vanished after excision of the scar, and re-appeared after the wound had filled up with spongy tissue, which formed a painful knot, but the patient again recovered after it was excised, and suppuration had been promoted. The excision must be done in such a way as to prevent the knife from entering the bite, or the blood from it commingling with and becoming a source of infection to healthy parts.

Instead of excision, cupping glasses may be used, or caustics applied, with a view to the abstraction and destruction of the virus. Cantharidal powder is sometimes placed upon the wound. Maginden and Gasperd each treated a case by injecting warm water into the veins. One of the patients thus treated died nine days after receiving a pint of the water from septicemia from wound in the foot, and the other from exhaustion. Radix mingo or ophiorgee is used as a specific in India. Chalk and alum is said to have been a great remedy in the past. Alisma Plantago or Mad wort, Scutellaria laterifolia or side-leaved skull cap, is quoted by Good to have cured a thousand cases in men and animals. The Finns and Russians used the blood of the mad animal as a specific, giving it freely to old persons attacked with hydrophobia. Chlorine has been suggested by the Italians. Good says the poison is peculiar and requires five or six days to be thrown off; the treatment should be sustaining. The poison of the viper has been proposed as a remedy, and it is said that canine catarrh insures immunity from the disease. Other remedies are chloroform, Indian hemp, chloride of zinc, etc.

Marshall Hall says the hydrophobic die of asphyxia, and advises tracheotomy. Virchow advises excision and cauterization of the wound and scar if the animal be found to be mad. Stephen Smith says, cauterization, ligature or excision of the wound or cicatrix may be resorted to. A class of men, at one time, made a practice of sucking the wounds caused by rabid animals, but desisted after several had contracted the disease. Magendie believed the constitution, in these cases, to be armed against any medicine. Curare and jaborandi have both been tried and failed (Aitkin). Prophylaxis, by early excision, is the principle of zymotic incubation. Runians has lately reported, in the *Lyons Medicale*, a cure by the inhalation of oxygen.

Large doses of bromide of potassium should be given daily during the period of incubation. Aurum may be given hypodermically in $\frac{1}{16}$, $\frac{1}{8}$ or $\frac{1}{6}$ gr. doses, and cures have been effected by its use, even when the dose was but gr. $\frac{1}{3}$. The spasm may be controlled for a time by amyl nitrite, and electricity (the primary galvanic current) has checked convulsions. In commencing the treatment of persons bitten it should be remembered that the disease may never be developed.

In post mortem observations it has been noticed that the nerves near the wound and their sheaths are inflamed, and there is redness of the cervical ganglia, medulla oblongata and corpus striatum. The optic thalami are softened, and the vagus, phrenic, and sympathetic nerves inflamed. Magendie found putrefaction and gas in the blood of the man into whose veins he had injected warm water. Dessault found worms in the heads of animals, and believed animalculæ to be the cause of the disease. The microscope shows great distension of the vessels of the gray matter of the medulla. Miliary abscesses are found in the nuclei of the hypoglossal and glasso-pharyngeal nerves. Napeau noticed congestion of nerves near the wound, and Hammond has noticed extravasated blood, oil globules and amyloid corpuscles.

The President remembered only two cases of hydrophobia in this city. One of these, a boy, living on Porter street, was bitten by a rabid dog, and the disease developed in about six weeks, being first noticed in the morning, when the boy was about to wash. The appearance of water seemed to induce fear and convulsions. There was no complaint in regard to the wound, which had healed kindly. Medicines seemed to be of little or no use. The patient died in about twenty-four hours.

Dr. Mulheron: Saw a case of hydrophobia in this city in 1875. It was in a boy, æt. about 10 years, who had been bitten by a rabid dog about ten weeks previously. Shortly after the bite was received, a physician visited the patient, inserted two sutures, but did not cauterize the wound. There was great fear of water, the sight of which would induce violent tetanic convulsions. These spasms were usually preceded by pain at the seat of the wound. Prescribed ammonium valerianate and potassium bromide, but they could be very imperfectly taken. Could obtain no relief, except from chloroform. Death resulted in about thirty-six hours.

A case occurred in Canada, a number of years ago, believed to be due to the bite of a dog, received about one year before. The patient died in convulsions. The reports of the case were not regarded very reliable.

He regarded the development of hydrophobia, from wounds inflicted eight to ten years before the onset of the disease, as very problematical.

Dr. Chapin: It might be questioned if the bite of a healthy dog could induce this disease.

Dr. Mulheron: When the disease develops many years after the bite was received, might not the scar be the cause of the attack? A girl ran a nail into her foot. About six years later, she had epileptiform convulsions. The scar was removed and the patient recovered.

The President: In hydrophobia, the convulsions are tetanic, not epileptiform, and the mind may be clear in the intervals.

Dr. Wyman: My patient had considerable delirium between the convulsions.

Dr. Yemans: I saw the case referred to by Dr. Mulheron. It was characterized by considerable delirium. The autopsy presented no observable pathological conditions.

W. H. Rouse, M. D., Ph. C.,
Secretary.

Meeting of Detroit Academy of Medicine.

January 2, 1883.

The academy met at the office of Dr. Andrews.

VERBAL COMMUNICATIONS.

Dr. Chittick: I have seen several cases of diphtheria; lost two—one from pyæmia, and the other from diphtheritic croup; latter died on the evening of the day I was called in. I have several cases of follicular tonsillitis. I treated one case of diphtheria after the method of Dr. C. W. Reiter, of Pittsburg, Pa., with large doses of calomel. The patient was a girl, 13 years of age, who was recovering from typhoid fever. I was treating a child four years old in the same family for diphtheria, and who died of this disease the day I quit treating the older girl. After waiting three days, to be sure it was a case of true diphtheria, and after the exudation had covered the tonsils, pharynx and uvula, I commenced my treatment. The first dose was 20 grs., and afterwards the patient received 10 grs. every hour. This was continued until the patient had taken, in four days, an *ounce* less 20 grs. of calomel. The following are a few notes on the case:

First day—11 A. M., gave first dose; 4:30 P. M., had seven stools, felt little better than in the morning, had severe headache, voice sounded much better.

Second day—No better, exudation more developed, headache continuous, no appetite, no more stools, tongue had a blackish-brown appearance and seemed much thicker; 9 P. M., patient felt much better, went to stool twice but passed nothing but wind; ordered medicine every three hours.

Third day—No further improvement, no stools, exudation not spreading; ordered same dose every two hours.

Fourth day—Patient very much better, found her up and dressed, ate a good breakfast, exudation about one-half diminished, had separated from tonsils, leaving a red bare surface with small bleeding spots still on back of pharynx, tongue same; ordered medicine every three hours; 6 P. M., had two good stools, appetite good, was still up and felt pretty well; medicine discontinued at 10 P. M.

Fifth day—Patient after clearing throat had no exudation, had two stools which were dark-green and looked like chopped up pickles, appetite good.

Had two stools each on sixth and seventh day, appetite very good. There were no signs of salivation during treatment nor since. No local treatment was used. On third day commenced to give chlorate potas., 5 grs. every two hours.

I have seen also a case of puerperal fever. Patient had been delivered by a midwife, December 21st. Woman was feverish and delirious, and Dr. Hoyt was called in. He delivered part of the placenta. As he was about to leave the city for several days, he asked me to take charge. Temperature continued high in spite of large doses of quinine. Salicylic acid was also used. Patient was delirious most of the time. Dr. H. resumed charge December 28th. Patient died January 1st.

JANUARY 23, 1883.

The academy met at the office of Dr. Connor, Dr. Noyes presiding, in absence of the president and vice-president.

WRITTEN COMMUNICATIONS.

Dr. Petershausen read a paper entitled "Acute Internal Sepsis."

Dr. Connor: Is it supposed that the morbific agent causing septic disease is dead bioplasmic matter?

Dr. Petershausen: Klebs traces it sometimes to decomposed blood corpuscles.

Dr. Spalding: Is the poison in these cases always inoculated from without, or is it formed by natural decomposition of the tissues?

Dr. Petershausen: According to Klebs bacteria are always present in acute sepsis, and it is his belief that the disease is caused by their entrance into the system.

Dr. Spalding: If there then a specific recognizable form of bacteria which produces the disease?

Dr. Petershausen: It is believed that such a specific form exists, but it has not yet been discriminated. As yet the diagnosis depends on clinical phenomena.

Dr. Noyes: Is it not now admitted that the so-called bacillus tuberculosis is found in the sputa in cases not tuberculous? We do not know in these days what to believe in regard to alleged discoveries in pathology. What one asserts, another denies, so that we are left entirely at sea with regard to our conclusions.

Dr. Connor: Scientific men in Germany are placed under a peculiarly strong temptation to lie. Promotion among men of science is secured by the discovery of something new. It matters not whether a thing is true, if only it is maintained with sufficient positiveness as an original discovery.

Prof. Koch is undoubtedly a skillful microscopist. He finds a bacillus in the sputa of tuberculous patients, and describes it as characteristic of the disease. It is for his interest to maintain this as a valuable discovery and he does so; others may discover the same thing in absence of tubercular disease; the professor will not be convinced, and so in spite of adverse evidence will uphold the genuineness of his discovery.

I do not suppose that Dr. Rokitanski really believed that inhalations of sodium benzoate would cure consumption. It would make a stir in the world and add to his renown. Just so with the syphilitic corpuscle discovered in Vienna. I do not wish to discredit the real discoveries in science which we owe to the patient thorough-going researches of Germans.

To return, however, to the subject under discussion. If acute sepsis springs from the decomposition of protoplasmic matter, it falls into a class of diseases which is growing larger in proportion as we come to understand better the etiology and pathology of acute diseases. Some hold, for example, that acute rheumatism originates in endocarditis, the products of inflammation being carried into the circulation. So in a common cold, protoplasm is killed by exposure to cold (directly or indirectly) and the dead matter must be eliminated. Something analagous takes place in fevers, and the whole plan of their treatment is based upon this view of their pathology. The utility of hot water in the treatment of inflammatory affections is explained with reference to this theory, the effect being to promote the carrying off of dead matter and to render it innocuous. So constitutional peculiarities are explained; in some individuals there is greater liability than in others to death of protoplasm.

A case will illustrate the manner in which disease is transmitted to remote parts of the body by septic infection: The patient was a young lady, 18 years of age, who came to me from Adrian. She had always been perfectly well and healthy until two months previous to the time when I saw her, when she was accidentally tripped by a loose board in the plank sidewalk, and received some apparently slight injuries about the foot. She went to a doctor, so-called, who did not discover anything serious in her condition, and yet she was rapidly becoming emaciated, feverish and was suffering contiuually, although not able to define or locate her trouble. Finally it took definite form in an affection of the eye, for which she consulted me. When I saw her she was suffering from severe pain in the eye and in the head; had considerable fever; temperature 102°F., and was much emaciated, and so weak that they had feared that she would not reach Detroit alive. There was an abscess in the cornea and several in the iris, which could not be accounted for as the result of simple inflammation. There was no increased tension of the eye, and I was able to produce moderate dilatation of the pupil. It seemed to me evident that there was septic infection present, involving the brain as well as the eye. I endeavored to find the cause. At my request, Dr. Wyman made an examination of the foot, and detected a small amount of pus, deep among the structures of the foot. There was no evidence of septic infection elsewhere than in the eye and brain, except in the foot itself.

The patient improved under constitutional treatment; the pus accumulations diminished, and she seemed in a fair way to recover; but after she left my care, her symptoms again became more severe, following some exposure, and, the cerebral symptoms becoming more pronounced, she did not long survive. Now, how is it possible for a poison absorbed in this way to produce its effects at a remote point? The explanation given by Schmidt is the only one which is at all satisfactory, viz., that the products of decomposition have the power of acting as a catalytic upon the fibrinogen of the blood, thus giving rise to minute clots, which in their turn cause death of tissue by cutting off the supply of blood.

One peculiarity in this case was noted: the septic phenomena were confined to the right side of the body.

Dr. Noyes: This circumstance, unless it were the result of mere accident, would seem to argue against the theory the doctor has offered of the nature of septic infection. As a rule, however, the distribution of septicæmic phenomena is impartial over different parts of the body.

The case detailed calls to mind one in my own practice—that of a man who was suffering from severe iritis. There was much destruction in the eye—much pus in the anterior chamber. I myself despaired of anything but affording temporary relief of symptoms, and resorted for this purpose to repeated paracenteses. The fluid (aqueous humor) which at first was straw colored, became transparent, and the condition of the eye improved as the result of these operations, but I did not succeed in restoring vision. I saw at all events the importance in this case of letting out the matter. There was nothing in the patient's antecedent history to account for the iritis. There was a scrofulous diathesis—enlarged glands of the neck, etc.

I would say that pain in the head, in connection with iritis, is not sufficient ground for making a diagnosis of brain trouble. There should be hemiplegic symptoms if such trouble existed.

Dr. Connor: This is not necessarily the case. I saw a patient last summer in which the patient had a tumor as large as the fist in the brain, and yet exhibited no hemiplegic symptoms. Dr. French related a case of injury to one of the toes, in which one toe after another showed signs of gangrene, and finally sloughed off, but without any general septicæmia.

Dr. Robertson: It is now claimed that the bacilli of Koch are simply fat crystals.

Dr. Spalding: The more I hear about this subject the less I know about it. Is the effect (septicæmia) due to retention of products of decomposition, or is it due to an inoculation from without of infusorial germs? Is there a separate distinguishable poison, or germ, for typhoid, for syphilis, for sepsis, etc. These are thoroughly practical questions; if such poisons exist, it is important that we learn to distinguish them, and to deal with them individually, according to their individual peculiarities.

Adjourned.

JANUARY 30, 1883.

The academy met at the office of Dr. Stewart.

WRITTEN COMMUNICATIONS.

Dr. Maire read a paper on syphilis affecting the tonsils, with report of a case, and the differential diagnosis of the affection. Lancet, p. 449.

Dr. Connor: The doctor has done well to call attention to this particular phase of syphilitic disease. In my limited experience I have found that syphilitic affections of the tonsil frequently escape recognition even by competent physicians, and so are not benefitted by the treatment employed. One patient I call to mind who had been a long time under treatment by one of the best physicians in the city, without any perceptible improvement in his condition. The treatment had consisted in the use of astringent gargles and of inhalations, such as are usually prescribed in ordinary cases of sore throat. One could see at a glance that the patient was a man who would be liable to be exposed to syphilitic infection, and there should have been no difficulty in making a diagnosis, if the physician had only realized that the success of his treatment depended upon correctness in his diagnosis. This patient had a large excavation in the right tonsil, and had not been able to swallow solid food for some time before I saw him. I inquired at once in regard to the patient's history, and learned that he had had venereal disease. I accordingly put him at once on iodide of potassium, beginning with 20 grain doses, and increasing the quantity to 30 grains, with results that left no doubt about the diagnosis. In a subsequent attack of the disease he was treated on the same plan by Dr. Ellsberg.

Dr. Noyes inquired of Dr. Maire how long his patient had been under treatment by other physicians before he came under his care.

Dr. Maire: About three months.

Dr. Noyes: It is not strange that physicians frequently fail to recognize the true character of syphilitic lesions when they appear in unusual locations; and not immediately preceded by venereal disease. Those whose practice is confined to the higher social classes are liable to take it for granted that syphilis is excluded by the moral character, social standing and general reputation of their patients. When patients have come to consult me in regard to some eye trouble and I have asked them, "When did you have syphilis?" they have often said, "You are the first doctor who has asked me that question." In such a case as the doctor has described in his paper, it would seem as if the intractableness of the disease would have aroused a suspicion of its syphilitic character. It should teach us the importance of inquiring into the antecedent history of a patient before prescribing.

Dr. Clark: I have listened with interest to the paper, and was pleased with the lucid manner in which the doctor drew the differential diagnosis. It is not strange that physicians made mistakes in diagnosis in such cases. It is easy to mistake an abscess in the location described for an ulcer.

I should hesitate about asking a patient bluntly for a history of syphilis. It would perhaps be better, however, in some cases if I would overcome any delicacy of that kind. In one case my patient was a clergyman, who had as he said "clergyman's sore throat," a hereditary complaint in the family. I was disposed to make a different diagnosis, and I hinted as much, arousing a show of indignation, which ended, however, in confession, and in a course of successful treatment for specific disease.

I have had in my vicinity of late many cases of ulceration of the tonsil, cases which some pyhsicians call diphtheria. I use the ordinary treatment—chlorate of potassium and tincture of chloride of iron—but probably expectant treatment would yield equally favorable results. Some children object to taking the medicine and probably do not get much of it, but they seem to recover as well as those who are regularly dosed according to prescription.

Dr. Stewart: I have had several cases of syphilitic affection of the tonsil. Have depended largely upon local treatment employing a saturated solution of sulphate of copper in a mixture of equal parts of glycerine and water. Internally I give iodide of iron, and sometimes bitter tonics. I have seldom followed the iodide of potassium treatment, unless I found gummata forming.

Dr. Maire: In treatment of all diseases of the throat it is well to keep syphilis in mind.

Dr. Clark: How had your patient's teeth been destroyed by iron?

Dr. Maire: The patient lived out of town, and would obtain a week's supply of the medicine prescribed, and probably used it freely, and without any precautions.

PREVAILING DISEASES.

Dr. Clark: I have had some cases of malignant scarlet fever. I have had cases of this disease constantly this winter.

Last night I was called to see a child, I found it with a pulse about 90, fever not very high, eruption appearing, at midnight the pulse had risen to 150 and before morning the child was dead.

One case of membranous diphtheria I lost quite unexpectedly. The boy appeared to to be doing well, when one day he asked his mother to raise him up, and immediately after he died. My theory is that a portion of the membrane became detached and blocked up the air passages. This patient's sister was taken the day he died. It became necessary to perform tracheotomy, and the patient got along nicely two days when inflammation set in proving rapidly fatal. The third child was taken on the day of the little girl's funeral; I did not attend the case, but I see by the newspapers that this one also, the last in the family, is dead.

One case I was treating developed symptoms of uræmia, and died before I learned that the parents were dosing the child privately with urine (virgin's water), in tablespoonful doses. In this family also a second, third and fourth child were taken in succession, and all died, although not under my treat ment. (I suppose I had the credit of having killed the firstone).

Dr. Maire: I have seen a good deal of scarlatina. In some of my patients there has been swelling of the glands in the neck in one case in the lower part of the abdomen following the disease. My treatment for these enlarged glands is iodide of potassium ointment. I do not use poultices much, but apply instead a layer of cotton batting which produces rapid softening. When suppuration has taken place, I make a small incision, press out the pus, and keep the opening from closing by inserting a carbolized thread. When treated in this way the abscess heals with scarcely a perceptible scar.

Dr. Wyman: In my judgment squeezing these little abscesses is not wise. I would not advise making a large incision, but would use antiseptic washes and dressing, and syringe out the wound several times a day with a solution of boracic acid. I avoid squeezing, lest the healing process be interfered with.

Dr. Stewart: We are frequently told that in certain cases of croup or diphtheria tracheotomy offers the only possible hope for the patient. I recently had a case which shows that other measures may sometimes lead to a favorable issue. This patient had been given up by the attending physicians, the friends being unwilling that tracheotomy should be performed, and they believing that nothing but the operation could save the child. I thought myself that the child was past hope. However, I put the little patient into a cradle under a canopy of blankets and kept the air within this charged with the vapor from slaking lime. I gave turpeth mineral repeatedly—five grain doses every five minutes until the child vomited, affording temporary relief, but my main dependence was upon brandy, which I gave in frequent doses for five days, and had the satisfaction of seeing my patient recover.

Dr. Noyes: Turpeth mineral was recommended more than 35 years ago by Dr. Hubbard, of Maine, as the best remedy then known for croup. He maintained that it not only acted as a sedative and relieved the dyspnœa, but acted on the bowels, and furthermore arrested the formation of membrane in true croup.

Dr. Connor: When I was in New York it was generally known that all Dr. Fordyce Baker's families kept on hand powders of turpeth mineral with directions for using them in case of an attack of croup.

Dr. Maire: It is stated that turpeth mineral does not produce depressing effects. I have not found this to be true when I have used it. In several instances I have observed decidedly depressing effects from two-grain doses.

Dr. Stewart: I have used turpeth mineral frequently and never saw any depressing effects produced by it. The remedy cannot be given in too large a dose. I give from three to ten grains, and repeat the dose every five minutes until it vomits. Sulphate of zinc is decidedly more depressing in its effects.

Dr. Clark: My observation agrees with that of Dr. Stewart in regard to the effects of this remedy.

Dr. Wyman: Possibly the depressing effects observed by Dr. Maire were due to his giving it in doses too small to act promptly as an emetic.

Dr. Wyman gave some details of the recent serious illness of Dr. Petershausen, who at the previous meeting of the academy had read a paper, and at that time had seemed to be in usual health.

Adjourned.

JUDSON BRADLEY, M. D., President.
A. B. LYONS, M. D.,
Secretary.

Michigan State Medical Society.

The eighteenth annual session of this society was held at Kalamazoo, Mich., May 9th and 10th.

The session opened with prayer. The address of welcome was delivered by Hon. E. W. De Yoe, president of Kalamazoo, and responded to with his usual courtesy by the president, Dr. G. W. Topping. After the report of the executive committee, by Dr. Foster Pratt, reports were made by the secretary and treasurer. That of the latter showed abundance of funds in the hands of the society. That of the former showed more than a usual activity in the society.

Dr. Wm. Brodie read a paper describing an unusual case of aneurismal tumors of the scalp. The development of the tumors followed an injury produced by a severe fall upon the occiput. Following the opening of one of the tumors for diagnostic purposes, there had been an attack of erysipelas. This, though very severe, had not affected the tumors for better or for worse. The paper was referred to the publication committee. The secretary now read a long list of new applications for membership. Most of these applications were endorsed by Professors Palmer and Vaughn. They were referred to the committee on membership.

At the opening of the afternoon session the president read his address. Among other questions of general interest, he dwelt upon the present position of many subjects of sanitary science, showed the fallacy of the so-called prayer cure, and the faith cure and other common impositions, pointed out the dangers to the profession and the people from the indefinite multiplication of medical schools, and especially such as were dominated by political influences, as in state medical schools. He called attention to the fact that the relations between the profession at large and the medical department of the University were not so harmonious as they should be for the general good of both. And, finally, he suggested certain topics for consideration, in the hope that thus the existing evils might be removed, and a more harmonious state of the profession brought about. After much discussion, the portion relating to the University was referred to a committee for report. Their report was made during the final session. After a discussion, mostly by warm advocates of the existing state of affairs in the relations of the profession and medical department of the University, it was ordered that the stenographer's report of the several speeches be published in connection with the president's address. This whole matter occupied a very large portion of the several sessions of the society. Unfortunately, it took an intensely personal form, the University professors claiming that the criticism was an attack upon the medical department in general, and upon themselves in particular. The president and those thinking as he did claimed that the evils alluded to really existed, and that the good of the profession and of the medical department of the University demanded their consideration, and, if possible, their removal.

In a paper entitled "Clinical Notes on Errors of Refraction," Dr. C. J. Lundy directed attention to many of the ill effects of uncorrected defects of eye refraction. Especially he emphasized a peculiar form of headache accompanying some forms of it. This headache is located in the top and back of the head, and has all the characteristics of the headache associated with uterine disease in women. Many apt illustrative cases were given in support of the positions taken.

Taking as a text "Timely Catharsis," Dr. T. N. Reynolds, of Detroit, discussed the propriety of a more frequent use of these remedies.

Dr. H. B. Baker, of Lansing, concisely directed attention to some extended statistics on the "Epidemic Waves of Diphtheria" in England from the year 1855 to 1880. From these statistics he drew certain conclusions to which we will direct attention more fully at another time.

"Corneal Abscess" was the title of a paper read by Dr. E. Smith, of Detroit.

Dr. A. R. Smart, of Hudson, reported a case in which a button had been retained within the ear for thirty years.

All these papers, with more or less discussion, were referred to the committee on publication.

A humorous poem by Dr. E. B. Ward kept the entire house in a constant roar of laughter.

A paper by Dr. J. R. Post, of Lansing, upon "Water in its Relations to Health and Disease;" one upon "Plaster of Paris as a Surgical Dressing," by Dr. H. O. Walker, of Detroit; one on "The Gulf Weed in the Treatment of Polysarca Adiposia," by Dr. H. T. Tupper, of Bay City, and one by Dr. H. J. Reynolds, of Orion, on "The Etiology of Urethral Inflammation," were read by title only, and referred to the publication committee.

Under the head of election of officers, the following were elected:

President—Dr. A. F. Whelan, Hillsdale.

First Vice-President—Dr. Horace Tupper, Bay City.

Second Vice-President—I. S. Hamilton, Tecumseh.

Third Vice-President—H. B. Barnes, Ionia.

Fourth Vice-President—Augustus Kaiser, Detroit.

Judiciary Council—Foster Pratt, Kalamazoo; H. B. Shank, Lansing; S. P. Duffield, Dearbornville.

Delegates to National Medical Association—H. C. Wyman, J. B. Book, Wm. Brodie, L. Connor, H. O. Walker and E. L. Shurly, Detroit; E. E. Dunster, A. B. Palmer and W. F. Breakey, Ann Arbor; Foster Pratt, Kalamazoo; A. R. Smart, Hudson; J. H. Bennett, Coldwater; J. Andrews, Paw Paw; S. S. French, Battle Creek; C. H. Lewis, Jackson; F. H. Owen, Ypsilanti; H. M. Hurd, Pontiac; Hugh McCall, Lapeer; A. F. Hagadorn, Bay City; J. H. Jerome and L. D. Bliss, Saginaw; W. N. Smart, Grand Haven; I. R. Shepherd and C. V. Beebe, Manistee; W. E. Dockery, Pentwater; M. H. Dickenson, East Saginaw.

An effort was made to substitute for the regular nominees a ticket of purely adherents of the medical department of the University. But it failed; as also did the efforts to make Dr. Donald Malcean president. It appeared in evidence, and was not denied, that Dr. Maclean had furnished many passes to recent graduates of the University, and others, on condition that they support him in his desires to be made president of the association. It was also in evidence that, in accordance with Dr. Maclean's wishes, many letters had been written by his assistant to different members of the profession of Michigan, with the intent of inducing them to attend the meeting to ward off prospective attacks from Dr. Maclean and said University. Nothing is more evident than that the very occurrences of the sessions of the society proved many of the points made by the president in his address. The apple of discord was, as it has ever been, the Medical Department of Michigan University. That is the fact, however it may be explained. We do not here and now attempt to say whether the profession or said department is at fault, or whether both are in fault. Probably, as in most controversies, both are in fault.

The entertainment by the physicians and citizens of Kalamazoo, at the Burdick House, on Wednesday evening, was largely attended and heartily enjoyed by not only the society, but also many of the citizens and visitors.

The social chats between the sessions, many of them prolonged far into the night, gave opportunity for the correcting of misunderstandings, for the renewal of old friendships and formation of new ones. To us it has ever seemed that the promotion of mutual acquaintance is the most important function of such societies as this.

The next meeting of the society will be held in the city of Grand Rapids, in June, 1884.

Were we to sum up the main feature of this past meeting, we should say that it was the attempt of certain members of the society to help Dr. Maclean to the presidency, and of certain other members to thwart such purpose. In Dr. Maclean's interest we believe this attempt to have been disastrous, and certainly it was harmful to the good name of the profession. We trust that hereafter they will think twice who desire to use the society for their personal advantage, in opposition to its real wishes and real good.

[Reported for the Detroit Lancet.]

The Sanitary Convention at Reed City, Michigan, Under the Auspices of the Michigan State Board of Health.

The convention was held April 26 and 27, 1883, and was a very successful one, being fairly attended by the citizens of the place, by health officers of townships, cities and villages in the surrounding counties, and by sanitarians from other parts of the state. Among those present from other places were: Rev. Geo. D. Gillespie, D. D., LL. D., bishop of western Michigan, of Grand Rapids; Hon. John Avery, M. D., of Greenville; Prof. Victor C. Vaughan, M. D., of Ann Arbor; Arthur Hazlewood, M. D., of Grand Rapids, and Henry B. Baker, M. D., of Lansing, member of the State Board of Health; H. D. Bartholomew, C. E., of Lansing; Drs. C. M. Martin of Greenville, C. S. Ford of Cedar Springs, P. P. Shorts of Ludington, C. V. Beebe, J. Kinsley and L. S. Ellis of Manistee, F. J. Groner and Romig of Big Rapids, De Groat of Paris, E. Halsey Wood of Hersey and Parish of Evart; the following health officers were present: Dr. D. E. Robinson of Manistee, Dr. I. W. Badger of Big Rapids, Rev. E. H. Day of Cadillac, Dr. J. W. Mc-

Nabb of Sheridan township, Newaygo county, Dr. A. J. Thompson of Burdell township, Osceola county, Dr. E. Treadgold, of Ellsworth township, Lake county, Dr. W. H. Aylesworth, of Solon township, Kent county; also Rev. Mr. Martin and Mr. Ash of Ashton, Prof. Foreman of Ludington, Judge J. B. Judkins of Hersey, Messrs. Lacy of Nirvana, Clark of Fremont, Utley of Newaygo and others. After the pleasant introductory remarks by the president of the convention, Rev. J. W. Hallenbeck, and a neat and cordial address of welcome by Mr. Willis M. Slosson, president of the village, and a statement of the purposes of the convention by Hon. John Avery, M. D., president of the State Board of Health, the first paper was by H. D. Bartholomew, C. E., city engineer of Lansing, Mich., on "drainage and sewerage," in which he stated the principles which should govern the laying out and construction of drains, the principles which should govern the construction of sewers, calling attention to the different requirements in the two cases, drains requiring ready entrance of water throughout the entire system, while sewers should be water-tight at all places except at entrances and exits provided. He spoke of the rules to be observed in calculating the size where it was attempted to make one set of conduits fulfill both these requirements, and pointed out the advantages of the separate system under certain circumstances where applicable. He then made special recommendations for the conditions at Reed City.

Dr. E. S. Richardson, of Reed City, the secretary of the convention, in his paper on the water-supply of Reed City, showed diagrams illustrating the subject. The first was a profile of the Flint and Pere Marquette railway from Ludington to Midland, showing that the water-supply of Reed City must come largely from the rainfall on the circumscribed area west of Reed City. Another diagram exhibited a section of the earth down to the level of the bottom of the wells from the depot to the cemetery, the latter being on the highest ground, and the soil being sandy. Extraordinary precautions will need to be taken to prevent the leaching down from the cemetery and privy-vaults in the town, to the water supply beneath. Out of a large number of wells examined in the place, he had found but two contaminated, and samples of the water from them were exhibited illustrating the evidence of sewage-contamination; he also showed a sample of water from a well outside of town, on premises where there are cases of typhoid fever, and one recent fatal case; the water was very foul, as might be anticipated from the position of the well, between the house and the barn, which are on banks of clay, reaching into a stratum of sand which has no continuous protecting layer of clay over it and receives the washings from the barn.

Hon. J. B. Judkins, circuit judge, read an interesting and valuable address on the relation of people to public health laws, showing that there could be no true and healthful liberty of the people except by a general support of such laws.

Prof. V. C. Vaughan, of the University of Michigan, read a paper carefully giving the nature of food, its proper office in the body, and a detailed account of the results of examination of very many different kinds of food, showing the nature of the adulteration of each.

Mr. O. P. Dewey, of Reed City, presented the subject of the mischief done to public health by means of patent medicines and quack doctors.

Rev. E. H. Day, health officer of Cadillac, read a paper on the disposal of slop-water and waste matter in villages.

F. J. Groner, M. D., of Big Rapids, gave a very interesting and able resumé of the present literature of the subject of germs in diseases, including a list of a large number of diseases now known or believed to be caused by their own specific germs. Incidentally he referred to several grounds for hope that in the near future several of these diseases might be favorably modified by means similar to that by which small-pox is modified by vaccination.

Hon. John Avery, M. D., president of the State Board of Health, read a paper and exhibited diagrams showing how ordinary dwellings already constructed may be properly ventilated; also plans whereby ordinary dwellings could be constructed with good ventilation without great extra cost.

C. H. White, M. D., of Reed City, gave a concise history of diphtheria, and a short account of what is now known of that disease. In the discussion which followed, Henry B. Baker, M. D., secretary of the State Board of Health, presented a short paper entitled "epidemic-waves of diphtheria," showing that the disease tends to recur in a community at comparatively regular periods, and that this period seems to be shorter in cities than in sparsely settled countries. The evidence seemed to indicate that diphtheria was usually spread from person to person, and from country to country. Dr. Richardson mentioned cases illustrating the great contagiousness of the disease, and the general tendency of the discussion was in the same direction, and at the close of the discussion the document issued by the State Board of Health on the restriction and prevention of diphtheria was distributed to the audience.

Dr. L. S. Ellis, of Manistee, read an able paper on "How Diseases are Contracted and Communicated," dwelling at some length on recent experiments by Koch and others, tending to show that consumption is a communicable disease.

C. M. Martin, M. D., of Greenville, in a paper entitled "How to Get Sick," went over the dangers, climatic, from lack of ventilation, from lack of proper clothing, from exposure to contagion, from improper water-supply, from improper food, making a very instructive address.

The convention closed with votes of thanks to the officers, etc., and Dr. Avery responded on behalf of the State Board of Health, for the interest manifested in the convention.

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[Reported for the Detroit LANCET.]

Michigan State Board of Health.

The Michigan State Board of Health met at its office in Lansing, Mich., on April 11, 1883, the following members being present: Hon. John Avery, M. D., of Greenville; Arthur Hazlewood, M. D., of Grand Rapids; Hon. C. V. Tyler, M. D., of Bay City; Henry B. Baker, M. D., secretary. Dr. Avery was made president *pro tem.* The minutes of the last two meetings of the board were read and approved. The secretary read a quarterly report of work in the office of the board, showing the amount of proof read, meteorological and other reports received, compilation of material affected, bulletins, documents, circulars, blanks, and reports distributed, correspondence performed, etc., being a brief summary of the work performed in the office of the board. The secretary also presented a resume of the work performed by other state boards of health, and a review of sanitary legislation in other states. He stated that in Michigan the house of representatives had passed a bill which was likely to become a law, practically repealing that section of the act establishing the State Board of Health which provides that the secretary of the State Board of Health shall be the superintendent of vital statistics. If the bill becomes a law, the vital statistics will hereafter be entirely under the control of the secretary of state. The secretary referred to the alarming presence of small-pox in Nashville and New Orleans, and suggested that Michigan was in danger because of the approaching time when southern people flock to the numerous summer resorts in northern Michigan. The secretary was instructed to correspond with the National and other boards of health, and to do all that can be done to prevent the introduction of small-pox by quarantine and inter-state inspection. The secretary was authorized to send to health officers in the vicinity of health and summer resorts information of the existence of small-pox in places whence some of their visitors came, also to send the same notice to health officers of cities especially exposed to introduction of the disease.

The secretary presented an account of sickness caused by eating salted pork. The sickness was attended by burning in the stomach and abdominal tenderness. Some of the meat was fed to four cats. The symptoms in the cats were, expansion of the pupils, vomiting, great thirst and tenderness of the muscles. Diarrhœa was not present. Three of the cats died, the fourth one being barely able to walk after one month. They were attacked twelve hours after eating the meat. A partial microscopical examination of some of the meat by Prof. T. J. Burrill, of Champaign, Ill., disclosed nothing within the meat to have caused the illness, but on the surface of the "lean" portions there was found a *micrococcus* enormously numerous, as well as some fungous developments of a mould-like kind sparsely present. The *micrococcus* was of a new variety, entirely distinct from that of "hog cholera," which latter was not detected in the specimen. It is not known whether the organism was on the pork when it was used for food, and it has not yet been determined whether it is now alive. Culture experiments will be instituted to determine that point. It is quite devoid of motion and has a less dense or firm appearance than most of its congeners. It takes the ordinary aniline violet stain. Usually two are connected in a figure "8" form, rarely more. The secretary presented statements from Mr. Love, clerk of the board of health of Grand Rapids, showing successful prosecution for selling diseased meat in several cases.

In the afternoon session, Prof. R. C. Kedzie, formerly a member of the State Board of Health, made a report of his attendance at the meeting of the Sanitary Council of the Mississippi Valley, at Jackson, Miss., April 3, 1883, at which he represented the board. He reported that the meeting was unanimous in urging the continuance of the National Board of Health, and the system of river and railroad inspections to insure the prevention of the spread of epidemic diseases, without the obstruction of travel and commercial relations between the states, and of such surveilliance of the port of New Orleans as will give to the several state and important municipal health authorities represented in the council, prompt and reliable information of the occurrence and progress of an epidemic disease in that city. Plans for such work were discussed and adopted; and it was understood that in case of the failure of the National Government to carry it on after June 2d, beyond which time the National Board of Health will be unable to sustain it unless President Arthur places the $100,000 appropriation at its disposal, it will become important and necessary for the several states endangered to supply, in some way, the money to carry on the work. Delegates from Mississippi, Arkansas, and other states, pledged certain amounts, in case it proves to be necessary. (Michigan has never made an appropriation available for use in preventing the introduction of epidemic diseases.) Dr. Kedzie received a vote of thanks for the able manner in which he represented the board at the meeting.

This being the annual meeting of the board, the election of a president for the ensuing two years resulted in the election of Hon. John Avery, M. D., of Greenville.

The secretary presented an account of a death of a railway employè by being caught in a "frog," together with a copy of a bill now before the legislature providing for a wedge of hard wood or other substance of equal utility, in all "frogs" of an angle of less than 45 degrees. He described the method devised by a prominent railroad man, of tamping hard coal cinders in the "frog." This method is not dangerous to the traveling public, and the wedge of hard wood by its liability to be misplaced, might throw a train from the track and cause many deaths.

The secretary was authorized to prepare a blank form for the use of health authorities in Michigan in reporting the occurrence of a disease dangerous to the public health, to the secretary of the State Board of Health.

Invitations to hold sanitary conventions at Muskegon and Ionia were accepted, the dates to be hereafter decided upon.

The newly elected president announced the following:

STANDING COMMITTEES.

1. Epidemic, endemic and contagious diseases—H. F. Lyster, M. D.
2. Sewerage and drainage—H. F. Lyster, M. D.
3. Foods, drinks and water-supply—V. C. Vaughan, M. D.
4. Buildings, including ventilation, heating, etc.—Jno. Avery, M. D.
5. Climate, geology, topography, etc.—Henry B. Baker, M. D.
6. Disposal of Excreta—John H. Kellogg, M. D.
7. Poisons, explosions, etc.—V. C. Vaughan, M. D.
8. Occupations, recreations and habits—J. H. Kellogg, M. D.
9. Relations of schools to health—Jno. Avery, M. D.
10. Sanitary survey—C. V. Tyler, M. D.
11. The death-rate as influenced by age—Henry B. Baker, M. D.
12. Legislation—C. V. Tyler, M. D.
13. Finances of the board—Arthur Hazlewood, M. D.
14. Mental hygiene—Arthur Hazlewood, M. D.
15. Diseases of animals—Henry B. Baker, M. D.
16. Relations of preventable sickness to taxation—John H. Kellogg, M. D.

These nominations were confirmed by the board.

Dr. Baker, as committee on diseases, reported an effort being made in the legislature to secure an appropriation for the State Board of Cattle Commissioners.

Dr. Tyler reported the presence of a bill in the legislature prohibiting putting sawdust into streams.

Dr. Hazlewood reported that he had frequently seen old oil barrels being collected in Grand Rapids, from which the brand had not been erased, and often on new invoices of oil, the inspector's brand was so indistinct that the date of inspection could not be deciphered.

The secretary was requested to prepare a memorial to the President of the United States, petitioning that he place the $100,000 appropriation in the hands of the National Board of Health.

The board performed much routine business, and adjourned to meet at Reed City, Mich., April 26 and 27, 1883, at which time there will be a sanitary convention at that place under its auspices.

Health in Michigan.

For the week ending March 17, 1883, the reports indicate that bronchitis and pneumonia decreased in area of prevalence. There was no marked increase in any disease reported.

At the state capitol the prevailing winds during the week ending March 17 were southwest, and, compared with the preceding week, the temperature was higher, the absolute humidity and day and night ozone more, and the relative humidity less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 17 and since, at 16 places, scarlet fever at 18 places and measles at 14 places. No small-pox reported in Michigan.

For the week ending March 31, 1883, the reports indicate that rheumatism, consumption, bronchitis and dysentery increased, and that remittent fever and whooping-cough decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending March 31, were northeast, and, compared with the preceding week, the temperature was higher, the absolute and relative humidity slightly more, and the day and night ozone less.

Compared with the average for the month of March in the preceding six years, measles and influenza were more prevalent, and whooping-cough and remittent fever less prevalent during the month of March, 1883.

For the month of March, 1883, compared with the averages of corresponding months for the five years 1879—1883, the temperature was lower, the absolute and relative humidity and the day and night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 31 and since, at 14 places, and scarlet fever and measles each at 17 places.

For the week ending April 7, 1883, the reports indicate that remittent fever, measles and tonsillitis increased, and that consumption, dysentery, bronchitis and typho-malarial fever decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending April 7, were northeast, and, compared with the preceding week, the temperature was higher, the absolute humidity and night ozone more, and the relative humidity and day ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 7 and since, at 13 places, scarlet fever at 19 places, and measles at 24 places.

For the week ending April 14, 1883, the reports indicate that inflammation of the brain, diarrhœa, tonsilitis, pneumonia, and whooping-cough increased; that influenza considerably decreased, and consumption and measles decreased in area of prevalence.

At the state capitol the prevailing winds, during the week ending April 14, were southeast, and, compared with the preceding week, the temperature was considerably higher, the absolute humidity and the day ozone more, and the relative humidity and night ozone considerably less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 14, and since, at 9 places, scarlet fever at 18 places, and measles at 23 places.

One case of measles came with immigrants arriving at Port Huron, April 12.

For the week ending April 21, 1883, the reports indicate that influenza, consumption and whooping-cough increased, and inflammation of the brain and diarrhœa decreased in area of prevalence.

At the state capitol the prevailing winds, during the week ending April 21, were southeast and southwest, and compared with the preceding week, the temperature was lower, the day and night ozone more, and the absolute and relative humidity less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 21, and since, at 13 places, scarlet fever at 18 places, and measles at 22 places.

Four cases of measles came with immigrants arriving at Port Huron, April 20.

For the week ending April 28, 1883, the reports indicate that cholera morbus, erysipelas, typho-malarial fever and rheumatism increased, and that diphtheria, intermittent fever and pneumonia decreased in area of prevalence.

At the state capitol the prevailing winds, during the week ending April 25, were northeast, and, compared with the preceding week, the temperature was considerably lower, the absolute humidity and the day and night ozone less, and the relative humidity more.

Including reports by regular observers and

by others, diphtheria was reported present during the week ending April 28, and since, at 10 places, scarlet fever at 18 places, and measles at 22 places.

For the week ending May 5, 1883, the reports indicate that diarrhœa, dysentery and measles increased, and that neuralgia, rheumatism, influenza and consumption decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending May 5 were south, and, compared with the preceding week, the temperature was higher, the absolute and relative humidity more, and the day and night ozone less.

Compared with the average for the month of April in the preceding six years, measles was considerably more prevalent, and intermittent fever, remittent fever and diphtheria were less prevalent during the month of April, 1883.

For the month of April, 1883, compared with the average of corresponding months in the five years 1879—1883, the temperature was slightly higher, the absolute and relative humidity the same, and the day and night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending May 5 and since, at 7 places, scarlet fever at 19 places and measles at 25 places.

For the week ending May 12, 1883, the reports indicate that diphtheria, neuralgia, influenza, remittent fever and intermittent fever increased, and that diarrhœa and rheumatism decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending May 12, were west, and, compared with the preceding week, the temperature was higher, the absolute humidity and the day and night ozone more, and the relative humidity less.

Including reports by regular observers and by others, diphtheria was reported present during week ending May 12 and since, at 11 places, scarlet fever at 16 places, and measles at 31 places.

For the week ending May 19, 1883, the reports indicate that measles increased, and that erysipelas decreased in area of prevalence.

At the state capitol the prevailing winds during the week ending May 19 were southeast, and, compared with the preceding week, the temperature was higher, the absolute humidity greater, the relative humidity and the day and night ozone less.

Including reports by regular observers and by others, diphtheria was reported present during the week ending May 19 and since, at 17 places, scarlet fever at 18 places and measles at 36 places. One case of small-pox was reported at Detroit May 19.

HENRY B. BAKER,
Secretary.

LANSING, February 15, 1883.

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Union Medical Society of Northern Michigan —Regular Annual Meeting.

The annual meeting of the Union Medical Society of Northern Michigan was held at Ionia, April 19th, 1883. Present: Drs. Barnes, Gundrum and Romig, of Ionia; Martin, Bower and Sheldon, of Greenville; McLean, of Stanton; Eply, of Palo; Roller and Cope, of Edmore; Forsythe, of Lakeview; Burkart, of Big Rapids, and White, of Reed City.

After listening to the annual address of the retiring president, Dr. C. M. Martin, of Greenville, the following papers were read: "Retarded Labor," by Dr. D. A. McLean, of Stanton; "Infantile Convulsions," by Dr. C. S. Sheldon, of Greenville; "The use of Carbolic Acid in Surgical Dressings," by Dr. C. S. Cope, of Edmore.

Written reports of cases in practice were also presented as follows: "Pneumonia accompanied by great depressing of Temperature," by Dr. F. Gundrum, of Ionia; "Chronic Otitis," by Dr. A. H. Forsythe, of Lakeview, and "Intestinal Obstruction with a pathological specimen showing site of obstruction," by Dr. L. A. Roller, of Edmore.

The discussion of these papers and reports of cases was unusually spirited and interesting.

The committee on program for the next meeting reported as follows: To prepare papers: Drs. Gundrum, White, Burkart, Romig, Martin and Bower. To report cases in practice: Drs. Avery, Griswold, Nichols, Eply, Aylesworth and Ford.

The annual election of officers resulted as follows:

President—Dr. H. B. Barnes, of Ionia.

Vice-Presidents—Dr. John Avery, of Greenville; Dr. F. Gundrum, of Ionia; Dr. J. L. Burkart, of Big Rapids, and Dr. C. H. White, of Reed City.

Treasurer—Dr. D. A. McLean, of Stanton.

Secretary—C. S. Sheldon, of Greenville.

Drs. H. L. Bower and C. S. Cope, were elected members of the Society.

President Barnes appointed as a Board of Censors: Drs. Romig, Roller and Bower. On motion the secretary was directed to have published fifty copies of the Constitution. Dr. Burkart invited the society to hold its next meeting at Big Rapids. The invitation was accepted and the society adjourned to meet at that place July 19, 1883.

CHAS. S. SHELDON, Sec'y.

Correspondence.

294 EAST BROADWAY,
NEW YORK CITY.

L. Connor, M. D., Editor Detroit Lancet:

MY DEAR DOCTOR—I had the pleasure last evening of attending the New York Academy of Medicine Section of Obstetrics, etc. Dr. Rudolph Tauszky read a paper entitled "How to Secure the Best Physical Condition After Parturition." Among other things to be observed he stated that the patient should not be left too long, if there was the least sanguineous discharge, claiming that such discharge was abnormal, and if the uterus was properly contracted could not come from it; if it came from slight lacerations of the cervix or vaginal wall, then it was the duty of the accoucheur to determine this fact and stop the hæmorrhage by touching with tr. iodine or tr. ferri. chl. Sometimes he has found it necessary to use a *serre fine* or two. Wounds of this kind so treated usually healed in two or three days and removed a source of septicæmic infection. He added that he had never lost a case of confinement. During the discussion of the paper most of the speakers objected to this part of the paper, considering that it would be necessary to remain with the patient several days in most cases. The reader of the paper also exhibited a new device from Lieter in Vienna for reducing intra-pelvic temperature. It consisted of a closed metallic cylinder which may be compared to the shell of a hen's egg, containing a spiral septum. At one end were two short tubes for attaching rubber tubing. This cylinder being placed in the vagina may be kept at any desired temperature by a constant stream of water passing through it.

One of the members exhibited samples of the kola nut, which he had procured from Africa. This nut is said to combine the properties of coffee and cocoa with some additional properties, rendering it very valuable as a therapeutic agent; it will soon be reported to the profession. The speaker claimed that its use had controlled an epidemic of suicidal mania in Africa, I believe.

Yours truly,
CHAS. L. LANG, M. D.

The Detroit Lancet.

LEARTUS CONNOR, A. M., M. D., EDITOR.

The Relation of the Study of a Buck's Antlers to Our Knowledge of the Best Method of Treating Popliteal Aneurism.

TO many the statement of the above inquiry would seem puerile. But it furnishes an excellent illustration of the practical and beneficent results of physiological study in its broadest sense. In his late Hunterian address, Spencer Wells (*British Medical Journal*) tells the story. Hunter became interested in the annual growth and shedding of the buck's antlers. He tied the artery which supplies the growing and the soft covering called the "velvet," which conveys the vessels supplying the material for growth. Pulsation in the vessels of the velvet ceased and the antler became colder. A week after the vessels were again pulsating, the velvet was warm and the antler growing. The buck was killed, the tied artery found obliterated, but the circulation was carried on by vessels below and above the ligature, ordinarily very small, but enlarged under the new conditions.

Previous to this Hunter had been in doubt whether, after the main artery to a part had been tied, the part would die or other vessels enlarge sufficiently to keep up life. The experiment described satisfied him that it would live. Previous to this time patients with popliteal aneurism had been required to submit to amputation of the limb. But after this, Prof. Owen says, that a coachman was in St. George's hospital and had consented to the amputation of his leg for the relief of a popliteal aneurism, and Hunter thought that from his experiment with the buck he had reason to believe that he could cure the aneurism by ligature, and save the limb. Hunter explained to his assistant and pupils the results he believed would follow the repetition on the man of his experiment on the deer. Just as he predicted, there was the same stoppage of pulsation, the same cooling of the part from which the supply of blood was cut off, the same return of natural warmth, and in six weeks the man walked away cured. In this and two subsequent cases, both artery and vein were tied; but in his fourth case, Hunter tied the artery only. The patient lived fifty years. After death, Mr. L. Wormald found the femoral vein pervious, the artery obliterated, and the tortuous anastomosing vessels greatly enlarged, and the aneurism represented by a small calcareous body not larger than a filbert.

The experiment on the buck furnished a sound basis for a splendid surgical procedure of inestimable importance. The buck was sacrificed, but men live with good useful legs from the days of Hunter till now. This account is exceedingly suggestive. It shows the direct relations between intelligent physiological study and the advancement of the art of surgery. Equally important examples could be adduced showing the relations of such study to the art of therapeutics and practice of medicine.

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Plain Talk Concerning the Announcements of Medical Colleges.

The secretary of the Illinois State Board of Health, in a late publication, gives vent to some thoughts respecting medical college catalogues worthy of more than a passing notice.

He says: "As a result of my own official experience during the past six years, I think it entirely within bounds to say that a strict adherence to their advertised requirements is the exception among colleges rather than the rule. In fully three-fourths of those which have come under my observation there have been irregularities of more or less gravity." Documentary evidence is given proving the truth of these statements.

Again he says: "Aside from its legitimate function as a medium of information to the student concerning his studies, the annual announcements so lavishly scattered through the country, are often prostituted to advertising the college and the claims of the individual members of the faculty, in terms and manner differing little, if any, from those of the ordinary advertising quack. In the course of the past six years I have examined carefully nearly all the announcements issued in this country and do not hesitate to say that many of them are of such a character that if a private practitioner had been guilty of publishing a professional card making such claims and couched in such terms, he would have been expelled from almost any medical society for a gross violation of ethics."

Thus it appears that many of our college announcements must be read with large reservations in order to obtain the truth. In short, that they deliberately falsify the objects they pretend to fully describe. The writer has a vivid remembrance of the impression this fact first made upon his mind as it was presented to him while a medical student. In discussing with his preceptor the merits of several medical colleges whose announcements he had obtained, he was inexpressibly shocked to hear his preceptor say this and that is not true to my positive knowledge. On inquiring why it was thus stated, he replied that it was stated to catch green students and green doctors.

We have had considerable experience in the study of medical college announcements, and by comparing this study with the actual operations of the colleges, we are entirely in accord with Dr. Rausch in the belief that those which exactly represent the truth are the exception. Most college announcements partake largely of the delusiveness of the patent medicine circular and the publications of the advertising doctor. Indeed, it is not uncommon to hear the individuals connected with the colleges affirm flat-footed that all they care for their college is the facility it gives them for advertising. In short, their sole desire is to be pushed at the expense of the many. If all did thus advertise it would be useless to any, but when some are shut off from so doing then the loud claims of the few count for them in the manner that they desire.

In minor details these announcements are often shocking exhibitions of the education other than medical of the persons who have written them.

We desire to have every doctor read for himself as the announcements come to him, and then compare the statements made with the actual facts so far as he can do so. In this manner all will be able to form some proper estimate of the honesty and ethical integrity of the colleges with which they are acquainted. There should be some means by which medical colleges could be held to as strict an account for the words and deeds as is the individual doctor. Until they are thus held we fear the present state of things will continue to increase.

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Is Sauce for the Goose Suitable for the Gander Also?

Two years ago at the meeting of the New York State Medical Society the committee on the revision of the code secretly sprung radical alterations in the code upon the society. As a result, the new code was adopted. But not until the advocates of the old code had entreated for another year of time in which to have the whole matter fairly laid before the whole profession for calm consideration previous to adoption. But no, the new code men said it must be passed now. Hence it was done. Lately the advocates of the old code deemed it wise to have the New York Academy of Medicine re-affirm its adherence to the articles of its association by which new members must subscribe to the old code. Nothing new was sought to be added to the academy's constitution and by-laws, simply a resolution to have existing laws made effective. Friends of this movement were invited to be present. They were present and the resolutions were passed. There was vigorous kicking, but to no purpose. The men who passed the new code through the state society were dreadfully incensed that their own methods should have been adopted by their opponents for the purpose of simply causing the academy to say that it stood by its written laws.

Frankly we are unable to see why the methods in one case were different from those in the other. Hence the less said about the motives and methods the better.

Dr. Fordyce Baker's attack, made deliberately before an assemblage of new code men and published at length in the New York *Herald* and other secular papers, upon the movers in the academy action, seems to us utterly out of place and uncalled for. We quote a few sentences. Speaking of Dr. Flint's plan he said: "It was a disgraceful, abominable trick, only fit to be undertaken by a low ward politician. In doing this, he pulled his venerable father from a pinnacle that was beautiful and lovely and dragged him in the mud. As it is, I can feel only mortification and shame for the men—none of them very heavy weights—who perpetrated this cowardly trick. For the rest of my life I can only treat Dr. Flint with required civility." Dr. Flint may or may not be a heavy weight, and he may or may not be a low ward politician, but we do say that from the evidence presented by both parties, he appears to have been a most gentlemanly and courteous speaker, and to have done only that which his opponents had previously done, and this for the purpose of simply reaffirming an old law, not making a revolution in the same.

In a card to which their names are attached, four ex-presidents of the New York Academy of Medicine deliberately record their approval of the action of the academy which has been the occasion of so much personal abuse. The names of these presidents are Willard Parker, M. D., James Anderson, M. D., Samuel Purple, M. D., and Austin Flint, M. D. The period covered by their several terms of office was eleven years.

We still in this, as in all other points in the discussion, notice that the new code men are always fully reported in the secular press, while the old code men are rarely seen there, except as introduced by their opponents.

The new code men seem adepts at calling hard names. It strikes us that their cause would seem stronger to outsiders if they had less of vituperation and personal abuse and more of genuine argument.

While it seems useless to hope for such a result, it does seem as if wisdom on the part of the new code advocates would counsel them to pause and consider their course ere making farther dissentions. Admitting all they say respecting the national code, let them for the common good seek their end in the only peaceful manner, viz., drop their present position and go the American Medical Association and work there for a revision of the code. There they will meet with the representatives of every state and most counties in the United States. Counselling with these, they may be able wisely to determine that which shall be best for the entire profession without any bitterness or unseemly wrangling.

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Is Violent Muscular Exercise Judicious?

Every physiologist would at once answer this question in the negative. So also would every wise observing physician. And yet as a matter of fact, games are being constantly played in which some are killed, some are crippled, some contract injuries that impair their comfort and usefulness during an entire life.

In the *British Medical Journal* during the past few months have been reported a death from heart disease, one from injury to the brain and one from injury to the spinal cord. All these were produced by playing at foot ball. Many chronic diseases have also been reported by physicians as being caused by this same game. We have had under observation several young men whose general health was so undermined by long severe pulls at boating, that even the eyes became seriously affected. So in other sports calling for excessive muscular work of the muscles and nervous system, the same results follow not unfrequently.

The *British Medical Journal*, in chronicling the last death, remarks: "We have no hesitation in saying that the game of foot ball, played according to the Rugby rules, is a brutalizing occupation and exhibition more worthy of a gladiatorial show than an English playground."

It seems to us that physicians should use what influence they possess in their several communities to teach the true principles of physical development in opposition to the false ones now so universally prevalent. To them we must look for the influence which shall put a stop to these destructive methods of physical exercise. A word from the trusted family physician will do much to settle the question with parents and even with the boys. If it were possible in some manner to have the girls exercise more and boys and men less, it would be better for both. The one takes too severe muscular exercise, if any, and the other too little, as a rule. Hence both suffer.

Especially do the foregoing remarks apply to boys and girls during their student life, or to such as pursue callings which mainly call into play the mental powers. To a brain worker at any age, all power spent in excessive development of the muscular system is so much absolutely wasted. After the muscles have been exercised enough to keep them healthy and able to carry on the work required of the body, all further development is largely at the expense of the brain power. The most successful brain workers learn this by experience. They find that much muscular development has taken away some of their nerve power.

The whole question is a broad one, but of vital importance to every person. Oil that is spilled upon the ground is of little value for feeding the wick of a lamp so vital power used in excessive muscular training is useless for carrying on complicated and far reaching mental processes.

Guilty of Criminal Ignorance.

Such was the verdict passed upon a physician by a coroner's jury in Woodcock, Pa., empanelled to decide where the responsibility should rest in a case of accidental poisoning. The facts were these: Dr. Dwight Gray prescribed for a patient acetate of potassium. The medicine was procured at a country grocery and dry goods store, where drugs were kept to accommodate customers. No regular drug clerk was employed, and so it happened that in place of potassium acetate, potassium cyanide was dispensed, the bottle containing the poison being wrongly labelled. Strange to say the medicine did not kill the patient outright, but it produced such alarming symptoms that a single dose only was taken.

Some time afterwards the same physician had occasion again to prescribe potassium acetate; he directed the clerk in the store to put up one ounce of the acetate for his patient. The clerk told him how the medicine had affected the former patient. The doctor asked to see the jar containing the acetate, and after examining it, he said: "Clark may have had a fit, but this medicine never caused it; it is all right; weigh out an ounce for Mr. Swift." He then gave Mr. Swift the package and gave him verbal directions how he should use it. The first dose proved fatal, but it is stated that even after the death of the patient Dr. Gray examined the medicine once more, in the stock bottle at the grocery, tasted it, rubbed a little between his thumb and finger; said it felt "greasy," but still called it acetate of potassium and said he thought the medicine had nothing to do with the patient's death; thought he died from congestion of the brain. The coroner's jury returned a verdict of death from accidental poisoning, adding: "We further find the said Dr. David Gray guilty of criminal ignorance in prescribing and ordering so poisonous a drug in the manner and for the purpose he did. And furthermore, we find S. D. Perkins & Son culpably ignorant and guilty in keeping and selling drugs the virtues of which they know nothing about, and we further find them guilty of employing Simpson Perry as clerk in their drug store who is not an experienced drug clerk." With the latter clause of this verdict we are not now concerned; in a country village it may happen that drugs cannot be procured except from some accommodating individual who deals in general merchandise, and who cannot be expected to know all about all of his wares. But the first clause quoted fixing the responsibility in part at least upon the physician must be acquiesced in as just and right. No physician has a right to practice medicine without a tolerably intimate acquaintance with such leading articles in the materia medica as potassium acetate, and of such dangerous poisons as potassium cyanide. On the evidence above given Dr. Gray was guilty in the eyes of any unprejudiced tribunal of manslaughter, and there need be no special legislation framed to secure his conviction and punishment. And sooner or later, through means like these, the people will make emphatic demand for a more thorough and scientific professional education.

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Percentage of College-Bred Men in the Medical Profession.

This is the subject of a paper read before the American Academy of Medicine at its last meeting by Dr. Chas. McIntire.

He finds that from fifty-eight of the most prominent literary colleges in the United States, during the entire period of their existence, nine per cent. have studied medicine, twenty-one per cent. studied theology and nineteen per cent. law.

Again, taking all the professional schools, he finds that of all the graduates for 1879 in medicine only eight per cent. have a degree in the arts and sciences, while of all the graduates in theology thirty per cent. have the degree in arts, and of all the law graduates twenty-five per cent. have the arts degree. These figures were reduced in 1880 to seven per cent. in the medical graduates, twenty-six per cent. in the theological schools and twenty-four per cent. in the law schools.

Thus it seems proved that but very few of the members of the medical profession are college educated men, and hence but a small percentage of the eighty-three thousand doctors in the United States are eligible to membership in the American Academy of Medicine. Only a small percentage of the graduates in arts study medicine.

Another small portion pursue part of a course and then enter upon the study of medicine. Lastly a greater proportion of college men enter upon the study of theology and law than medicine. Such being the facts, what shall be done about it? One says let matters alone and in the great future all things will be worked out right. No doubt but only because some will arise who will not rest content with such a view of matters, but who will set about the deliberate work of changing things to meet their views of what should be. The profession regards the academy and this matter from two different camps: those who are and those who are not eligible for membership in the academy. Each of these camps may be divided into those who do and those who do not sympathize with the elevation of the intellectual standard of the profession. The numbers who are eligible to membership in the academy and of those who are in sympathy with its work are the smaller. The reasons why this class is the smaller are many. All whose pecuniary interest lies in the multiplication of medical students are opposed to the academy. These include most connected with the several medical colleges and all whom they personally influence. Others think the society incapable of accomplishing its reforms. Others are simply indifferent.

Hence the mission of the academy is to convince the public that a preliminary training of the mind is absolutely necessary for the greatest efficiency of medical men. So long as the people will employ men who have not this training they will come forth to the exclusion of better trained persons.

To retain its rank as a liberal profession as opposed to a mere business it is needful that the medical profession awake and make its influence felt under all possible conditions.

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The New Indian Cure for Syphilis.

This is introduced to the profession by Dr. J. Marion Sims, through the *British Medical Journal.*

For many years it had been employed by the Creek Indians of Alabama. Of its good results Dr. Sims was an interested witness during his early professional career in Alabama. From the Indians the remedy passed into the hands of the slaves. The matter was finally studied by an intelligent physician Dr. McDade. From this study Dr. Sims obtains his facts. Eliminated of the inert remedies that entered into its composition, the formula for the remedy is as follows: "Fluid ext. smilax sarsaparilla, fluid ext. stillingia sylvatica, fluid ext. lappa minor, fluid ext. phytolacca decandra, ää ℥ ij; tinct. yanthoxylum carolinianum, ℥ j. Take a teaspoonful in water three times a day. The fluid extracts should be made from freshly gathered roots in order that their strength be retained. The illustrative cases given of the effects of this combination of drugs are quite striking and as convincing as such an amount of such evidence can ever be.

McDade has used the remedy with great satisfaction in cases of scrofula and thinks it would be worth trying in cancer. This may or may not prove useful when tried under different circumstances than those of the first observers, but it will certainly have an extended trial after the advertisement given it by Dr. Sims. Large numbers will use it simply because an eminent man has commended it. Other will use it because they have learned of it. Others because they have failed to relieve some cases by the use of the ordinary remedies. The course pursued by McDade and Sims in this matter are certainly commendable. The former had his mind open to consider the availability of any remedy from any source that had any appearance of affording relief to any form of disease. In humble ways start very many of the best means for combating disease. Having satisfied his own mind of the value of a certain remedy he communicates it to others. Among these is Dr. Sims. Being convinced that the remedy is worthy of a wider field of study he lends the use of his great name to bring it before a proper audience. Now we hope that it may be fairly studied and the results made evident to the world.

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The Meeting of the American Medical Association for 1888.

The principal general question to come before this meeting relates to the establishment of a new medical journal to take the place of the annual volume of the transactions, and to still further advance the interests of the general public. The board of trustees will report the results of their year's labors. This will show that they regard it feasible to start and maintain such a journal; that they have a man to recommend as editor, and a place in which the journal shall be published. All these subjects are to be considered more or less fully when the report of the board has been presented, giving the reasons for as well as the results of their deliberation: It is scarcely to be expected that there will be unanimous concurrence with the entire list of recommendations of the board. But we are quite sure that the fullest discussion will show that these are the best possible under all the circumstances. Ideal recommendations would fail to suit imperfect persons. We trust, however, that the journal may be started upon a foundation that will give it some chance of success. That there is a field for it, and a broad field, is evident to all students of the medical profession. That there will be struggles to control it in the interests of individuals and cliques, both in the profession and among outside manufacturers and tradesmen of several sorts, is only what must be expected. If the wishes of the trustees are carried out, it is safe to say that it will not be controlled by any outside parties, but that it will for good or ill be conducted in the interests of the whole medical profession. The arrangements for materials at the several sections are, we learn, exceptionally good. The report of the committee of arrangements is excellent.

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Dr. Ira W. Fletcher.

On May 10th, died Dr. Ira W. Fletcher, of Wayne, Mich. Dr. Fletcher was in the prime of life, and yet was suddenly cut down by an attack of pneumonia. We had known him for some fifteen years as a man and friend and medical student, and most of the time as a medical practitioner. He was the best type of a man, faithful, honorable and true in all his relations. When he became a medical student, he transferred to his study the same characteristics. When at last he entered the profession, he brought into it all the qualities of manly integrity and untiring conscientiousness. In the community in which he practiced all his life, there was no question of public interest which he neglected. To each he gave freely of his time and strength. In church, in school, in all political, social or business affairs, he was ever ready to do his share for the common good, and by his example to encourage others to do likewise. His practice was very large, as the people soon learned to depend upon him as on a strong tower. The long rides, in season and out of season, greatly exhausted him and reduced his physical powers below their normal standard. To this, doubtless, was due his sudden collapse before the pneumonia. In these days when steadfastness and manly independence in doing the right under all circumstances is so rare, Dr. Fletcher stood forth as a marked man—a strong pillar. Would that the entire profession was filled with those having similar principles of action.

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Memoranda.

Gruber reports a rupture of a membrana tympani from kissing.

The Fort Wayne Medical College graduated ten students.

What will become of the fifteen hundred or more medical students who have just received the degree of doctor of medicine?

Prof. Von Rinecker died recently in Wurzberg. He was well known by his writings on psychiatry, diseases of children, etc.

At a late society meeting, Dr. Piffard reported four cases of genuine leprosy at Charity Hospital, Blackwell's Island, N. Y.

On April 13th, Dr. C. L. Webber, of Newton, Mo., killed himself with his own knife. On April 15th, Dr. J. C. Book, of Stewartsville, Mo., killed himself by strangulation.

Prof. Lasegue died in Paris of diabetic consumption April 20th aged sixty-eight. He was one of the first French alienists, and for thirty years editor of the *Archives de Medicine.*

Dr. William Farr, of London, England, died April 16th, aged 76. He was the author of the English system of statistics. His name will be forever linked with the history of vital statistics.

Dr. E. Ingals, of Chicago, says: "I have long been an attentive observer of the condition of the profession of Illinois, and I do not think that our legislation has greatly advanced its interests."

The Contagious Disease Acts of Great Britain passed in 1866 and 1869 have been repealed by a large majority. It is not clear that they served in any considerable degree to protect from syphilis, etc.

The eminent laryngoscopist, Prof. Maurice Krishaber, died recently in Paris, of typhoid fever. He was an original and widely known worker, not only in his own field, but also in nervous diseases.

The College of Physicians and Surgeons of New York graduated 125 students May 15th. It plucked 41, or about one in four. We have not heard of any other college in America doing this. Most graduate all who apply.

The *Louisville Medical News* announces the following article of faith: "We are for Austin Flint and the old code. For Dr. Flint forever, and for the code so long as it is the creed of the American Medical Association.

The *Maryland Medical Journal* has been changed by its proprietors to a weekly. Each number will contain sixteen double-column pages, much like those of the *Louisville Medical News.* So the weekly medical journals multiply.

A Professor of one of the Cincinnati Medical Colleges has been compelled by the court to pay a student $300 damage for the destruction of her examination papers. Thus it seems that the law regards such papers as the property of the student.

At its late meeting the Medical Society of the state of Alabama unanimously passed resolutions to the effect that it would stand by the old code, and its supporters among medical men, medical journals and medical colleges.

The late report of Ontario Board of Health has received sharp criticism from the press of that province. The *Canada Lancet* says: "We have only to say that the report as a whole is a crude 'erratic' jumble, and is far from creditable to its authors."

One of the Cincinnati daily papers lately advocated that women use measures preventive of child bearing. The editor believes there are too many people and that women are right to take measures to prevent their too rapid increase.

As a memorial to his brother the late Dr. Foster Swift, Mr. James T. Swift has given to the College of Physicians and Surgeons of New York, ten thousand dollars the income of which is to be applied to the purchase of physiological apparatus for the College.

For six months the Paris Academy of Medicine has been discussing the treatment of typhoid fever. Its conclusion has been summed up by M. Peters thus: "We possess no specific treatment for typhoid fever, hence this disease is to be treated symptomatically according to the indications."

At its late meeting the Medical Society of the State of Louisiana, exchanged greetings with the Kentucky State Society. Both societies pledged each other to stand by the Old Code of Ethics of the American Association, until said Association shall see fit to change the same.

On April 30th, in his sixty-third year died Dr. Henry B. Wilbur, Superintendent of the New York State Idiot Asylum at Syracuse. He was the pioneer educator of idiots in this country having established the first school for them in his own house in 1848. Since 1854 he held the position in which he died.

Chemists obtain from guano or urine xanthine. Tea and coffee contain caffeine and theobromine. Now a chemist tells us of a process by which caffeine and theobromine can be obtained from xanthine. Thus chemistry can get the active principle of tea and coffee from urine and guano.

The physician in charge of the Kings County Insane Asylum was offered $100 to poison one of the patients. The offer was made by the husband of the patient, who wished to marry again. The doctor knocked the man down, and requested an attendant to show him out.

The daughter of Claude Bernard converted her entire courtyard, garden, parlor, and even bedrooms into an immense kennel for the care of destitute dogs. She hoped thus to make some reparation for the miseries inflicted by the great physiologist upon the canine race.

In recent discussions of ethical questions some seem to forget that the code of ethics has nothing to do with the rights of individuals as free American citizens. The code is no part of any state or national law. The code is simply a social arrangement of a purely voluntary character.

The new code men must feel that they have succeeded in dividing the medical profession of New York into two warring camps. Men who should be working shoulder to shoulder are placed in opposition of a bitter personal nature. If such is the first fruits of the new code, what shall be said of the later fruit?

In London each year more than one hundred persons are killed in the streets and two or three thousand more or less maimed. So the police reports. The causes of these results are numerous, vehicles of all sorts, falling of sign boards, chimneys, walls, slates, bricks, scaffolding, coming down of telegraph wires, etc.

The Faculty of the Minnesota State University propose to grant medical degrees on simple examination. They will form not a teaching but an examining body. Their published requirements are none too high but higher than any other medical college in this country. Will they live up to them? This is the question.

Dr. Bubnow, of St. Petersburg, announces the discovery of a new heart stimulant. It is the well-known false hellebore, adonis vernalis. His experiments show that it stimulates the motor and inhibitory ganglia of the heart, acting much like convallaria, and digitalis. An active principle called "adonidin" has been isolated.

Dr. Morrell Makenzie calls for a definition of terms to those who object to his claiming an identity between croup and diphtheria. The word croup popularly includes three distinct affections, viz., (*a*) catarrhal laryngitis; (*b*) laryngismus stridulus, and (*c*) membranous inflammation of the larynx. This latter he regards as identical with diphtheria.

Dr. Roosa has been appointed by the advocates of the New York code to prepare for publication a work opposing Dr. Austin Flint's work on the old code just issued. The same authority propose to publish as campaign documents letters from homœopathic physicians, to prove that certain prominent advocates of the old code have consulted with irregular practitioners.

The *Therapeutic Gazette* has done a good work in exposing the wiles of the "retired missionary whose sands of life had nearly run out," but who was raking in the shekels from foolish young men who read the religious and other newspapers, believing that their advertising colums can be trusted. Medicine whose cost was about two cents, was sold for $3.50. Lots of "sand" still left for sale at this profit.

The *Medical News* thinks "That Koch is rather too dogmatic and self asserting and speaks with rather more than the amount of confidence which characterizes a properly balanced scientific mind, whose only object is to establish truth, and not a theory or opinion of his own. On the other hand, it must be admitted that none of the critics have repeated his experiments with the care and exhaustiveness which he has used."

Gaillard's Medical Journal has been counting the medical journals as regards their position respecting the New York code, and finds the result thus: Four medical journals out of seventy-four sustain the new code; the rest stand by the old code. The four are all in New York and one mainly composed of society transactions. Omitting this, there are but three for the new code.

Dr. W. W. Wilberforce has been studying the rise and progress of the homœopaths in England from data furnished by their own directories. Thus in 1830 there was but one homœopathic practitioner. In 1853 it had increased to 213 members. In 1862 the directory showed 218 qualified practitioners. In 1870, 278 members. The highest number reached was 279, in 1874. In 1880 it had decreased to 275, and in 1881 the whole number was but 260. Thus it appears that the number of homœopathic practitioners is actually decreasing.

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